

YOUR HOME AND YOU

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THE PRACTICAL ENCYCLOPEDIA
FOR EVERY HOMEMAKER

Edited by

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formerly editor of 'Modern Woman' and of
'Good Housekeeping' and author of
'How to Run your Home without Help'



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Introduction

HOME-MAKING is such an enormous subject—and one likely to occupy so much of our life—that the problems keep on cropping up. They start from the moment that one decides to set up housekeeping, whether it be a single room or a mansion, and continue to the very end.

For instance, as you hopefully search for your first home, have you any idea as to what points to look for, and what to beware of, and are you aware of the legal obligations you are taking on as you sign that Agreement to rent? You see a dream picture of your home, but what is the best way to apportion money on furnishings; how does one *know* what constitutes value in, say, upholstery and bedding?

You get your home, and would like to try your novice hand at decorating, and it would save money to do some home carpentry too, if you knew where to begin. Then the boiler goes wrong and you realize that if the hot-water system was less of a mystery to you it would be easier to locate the trouble. The sitting room is lovely—at least, it would be if you coped with that cruel draught and the rattling windows—and talking about windows, how does one make a pelmet and professional-looking lined curtains?

Time goes on and the flat becomes too small. Would it be wise to buy a house, and if so, what would be the best method of raising the money? Now there's a new problem, that of the garden, and later on, a car to overhaul and clean. You decide that you need a garage, but how does one set about getting plans passed, and will it put up the rates much? The question of insurance has to be gone into anew, and also the matter of providing for the future.

The answers to these and hundreds more questions are to be found in these pages, but that's not the half of it! Your home, precious though it is, is only the background for your life. Relations with your neighbours; bringing up the family; what to do in sickness and sudden emergency; how to choose and train a puppy—there's no counting the times in which you need handy, reliable advice. Sometimes the occasion is gay—there's a wedding ahead and it's most important to know who pays for what, general procedure and etiquette, and even what to say when a speech is called for. It may be, though, that the skies cloud and help is needed. There are many organizations, both State and voluntary, that will lend a hand, if only one knows *where* to apply. So much trouble and anxiety can be avoided,

INTRODUCTION

life made so much fuller and richer by just the very fact of knowing about things. Why, even filling up an income tax assessment form and proving a will can become child's play!

Your Home and You is designed as the friendly, helpful guide on all the problems of both 'property and persons' likely to arise during the course of the average life. It does not claim to be exhaustive—that would be an impossibility in the space, for volumes have been written on many of the subjects dealt with—but each question is tackled fairly and squarely and directions are given for seeking further advice where necessary. An architect, two solicitors, a doctor, a veterinary surgeon, a bank manager, and experts on furnishing, decorating, household management, carpentry, the garden, flower arrangement, etiquette, the care of a motor car and on radio and television are amongst the specialist contributors.

There are two methods of reference, as well as lavish cross-references in the text. At the beginning of the book, the Contents outlines the various subjects treated under each general heading and subdivision, e.g. The Home Handyman: equipping a small carpentry workshop; basic carpentry operations; simple carpentry; brazing and soldering; distempering; painting; paper-hanging; graining and varnishing; miscellaneous repairs. At the end, the alphabetical index gives the page or pages on which references to individual subjects, e.g. distempering a ceiling, painting window frames, occur. Whichever you use, and both in conjunction are recommended for the fullest information, it is hoped that *Your Home and You* will soon become so familiar a friend that the pages will almost fall open by themselves at the right place to give the answer to *your* problem of the moment.

PART I. — BEFORE MOVING IN



Privileges and Responsibilities of a Householder

RIGHTS IN GENERAL

WHEN YOU proudly set up a home of your own, you will take on a new dignity and standing, not only among your friends and acquaintances, but also in the eyes of the law. For the position of householder—and we apply this term to you here whether you own a house, or rent one, or whether you merely occupy a flat or a room in someone else's house or building—is one which carries with it certain privileges and responsibilities.

When in occupation of his property, a householder, whether owner or tenant, is entitled to freedom from disturbance. He may eject unauthorized persons who refuse to go when asked, provided he uses no more force than is necessary for the purpose. It is seldom worth going to court over an isolated trespass without damage, though a repeated or continued encroachment may be effectively stopped by legal action. (See also POSITION OF A HOUSE OWNER, page 21)

RESPONSIBILITIES IN GENERAL ★

A householder has responsibilities to a variety of people, who may be his tenants, landlords, neighbours, servants (see also BUDGETING, p. 84), guests, tradespeople or merely passers-by along the road. There are, in addition, some financial obligations like the payment of rates and property tax (see also RATES AND RATEABLE

★ Law in Scotland differs, briefly, in the following respects:

The general rule that the occupier is entitled to object to any disturbance of the use and enjoyment of his property is qualified in certain circumstances. Thus in an industrial district, objection cannot be made to operations which have been carried on for upwards of twenty years, but only to any additions to existing noise or smells. Force must not be used to eject persons who come on to a householder's property without his authority, but a court action can be taken against persistent trespassers. The law of nuisance corresponds, in general, to the law of private nuisance in England, except that the owner is always liable for repairs to the external structure, and for damage caused by his failure, unless the tenant has undertaken liability for structural repairs.

VALUE, p. 43). He must not create or allow any public or private nuisance.

NUISANCE

Examples of public nuisance would be the obstruction of a highway, or allowing an insecure branch of a tree to overhang the foot-path, whether or not the occupier knew of the danger. Proceedings for a public nuisance can, as a rule, be taken only by the Attorney-General, but a private individual who is specially injured may sue the person responsible.

A private nuisance can be constituted by such things as a tree overhanging a neighbour's garden or spreading its roots underneath; fumes or smoke, from a bonfire for instance, which interfere to an unreasonable extent with the comfort of surrounding occupiers; or unreasonable noise, as from overloud radio sets or from odd jobs involving hammering carried out late at night. The overhanging branch may be cut down by the neighbour without notice, but he must restore it to the owner if required. He is not allowed to take overhanging fruit. The continuance of a private nuisance may be prevented by an order of the court, which may also award damages to the person injured.

It is the *occupier* of a property who is, in the first place, liable for a nuisance; an *owner* who is not the occupier is liable only if he created the nuisance or, where the nuisance is due to want of repair, if he let the property in its dangerous condition without taking from the tenant an agreement to repair. (See also POSITION OF A HOUSE OWNER, p. 21) The *occupier* is, in any case, bound to take steps to abate the nuisance as soon as he becomes aware of it.

A person who brings on to his property anything which is dangerous or injurious in itself is under an absolute obligation to keep it there, and is liable for all damage caused by its escape, unless he can set up one of a limited number of defences. This rule has been held to apply to wild animals, electric current, sewage, explosives, and water kept in a cistern. It would also apply to flames spreading from a bonfire.

The occupier of property owes certain legal duties to those who come upon it. Even a trespasser could sue him if he set a trap deliberately to injure him, but a trespasser has no other rights. A person visiting the property for a lawful purpose has at least the implied permission of the occupier to do so, and he is entitled to be warned of the existence of any *concealed* danger, such as a faulty stair on an unlighted stairway, of which the occupier actually knows. To a person coming to the property for some business purpose in which the occupier is interested, a higher duty is owed. The occupier must use



reasonable care to protect him from any *unusual* danger of which the occupier knows or ought to know. A piece of highly polished linoleum under a loose mat constitutes such a danger.

POSITION OF A HOUSE OWNER †

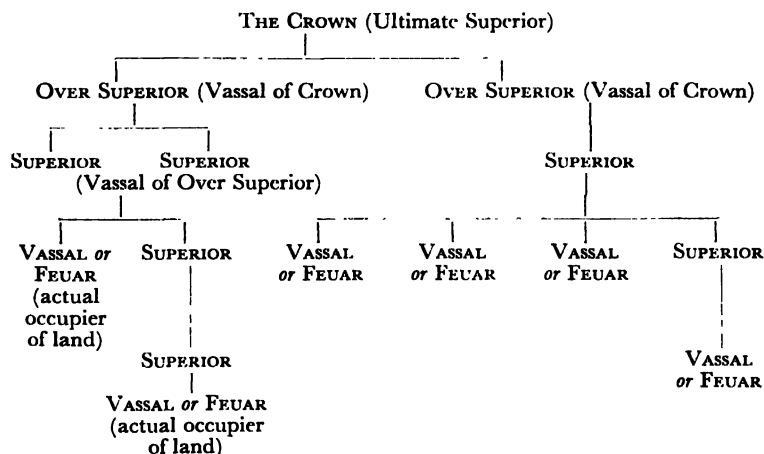
RIGHTS

The owner of a house and land in England or Wales may be a freeholder or a leaseholder. In the first case, he holds the land and anything built on it, in theory, direct from the Crown, and for an unlimited space of time. In practice he is the absolute owner of the land and buildings. On the other hand, a leaseholder's enjoyment of the property is limited in point of time by the duration of his lease. When the lease expires, though it may be a very long time hence, the property will go back to the person who granted it, or to his successors.

RENTS AND COVENANTS

A lease usually fixes a rent to be paid to the lessor and contains conditions to be observed by the lessee. For instance, there may be clauses binding the lessee to repair and maintain the property and

† In Scotland, practically all privately-owned house property is held on the following ancient feudal system of land tenure:



This diagram can be extended indefinitely and the system applies to practically the whole of the land surface of the Scottish mainland and islands. The rights of superiors and vassals are given in perpetuity, and nowadays can be freely sold or disposed of by will. A vassal can himself become a superior by feuing a part or the whole of his land to another person. This occupier or vassal usually makes a fixed annual payment called feuduty to his immediate superior. In more recent times the system has been extended to cover flats and houses in tenements.

to use it only for certain specified purposes. If these 'covenants' are not observed, or if the rent is not paid, the lease may be brought to an end, subject always to the lessee's right to apply to the court to be relieved of the consequences of his default. In modern times, freeholds are also frequently made subject to similar stipulations, but non-fulfilment of these stipulations will not in this case lead to any forfeiture, though it may lead to a court ordering payment of damages and strict observance in future.

An owner may sell the property if he wishes, and the purchaser will hold on the same terms as himself. He may mortgage his interest in the property; he may grant a lease or a tenancy of the whole or part of the property for whatever period he likes. If he is a leaseholder himself, he must leave at least a day of his own term free after the expiry of the sub-lease. He will be entitled to receive the agreed rent and to occupy his property again on the conclusion of the tenancy.

If there is scope for building development on a particular piece of land, or if the property could be made more profitable by using it for some new purpose, for instance, using an outbuilding as a public tea-room, the owner is entitled (subject to Town Planning permission) to exploit its possibilities for his own profit, or to sell it with all its potentialities.

RESPONSIBILITIES

The owner of a house and land is liable to maintain boundary walls and fences which the deeds show to be his property. Houses which are built in terraces or are only semi-detached are frequently divided from the next house by a 'party' wall, for the repair of which the owners of both houses are responsible. Liability for the upkeep of drains and sewers may similarly be shared in some cases. Drains generally are the responsibility of the owner up to the point where they join the nearest public sewer. (See NUISANCE, p. 20)

POSITION OF A TENANT‡

THE occupier of a house is frequently neither the freeholder nor the holder of a long lease, but a tenant on a weekly, monthly, quarterly, or yearly basis. Such tenancies do not come to an end until after a proper notice to quit has been served by the landlord or by the

‡ In Scotland, the length of notice required to terminate a lease is governed by statute, for most types of residential property, as follows:

If let for a year (or longer), forty days before the last term of Whitsunday (May 15th) or Martinmas (November 11th).

If let for less than a year, forty days before the end of the let. If let for less than four months, a period equal to one-third of the let. For weekly lets one week's notice is necessary. Notice must be in writing.

tenant. The position is the same in the case of tenancies of rooms, whether furnished or not.

The nature of the tenancy, in the absence of an express agreement, depends on the intervals at which the rent is agreed to be paid. The length of notice required to bring the tenancy to an end is similarly ascertained, except that for a yearly tenancy, six months notice is required. If a tenant leaves without due notice he will usually be liable for rent in lieu of notice for a similar period. The notice should be in writing and should be in definite terms leaving no doubt as to the date when it is intended to expire. The notice must be timed so as to expire at the end of a complete period of the tenancy, for instance, on a Saturday in the case of a weekly tenancy which began on a Saturday.

A tenancy can be brought to an end earlier if the rent is not promptly paid, or if its conditions are not fulfilled by the tenant; but a landlord must not make a forcible entry and so is well advised to go to court for an order for possession before ejecting the tenant.

RENT CONTROL AND TENANT'S PROTECTION

If the net rateable value (which can always be ascertained from the local authority) is less than £100 in London, £75 elsewhere in England or Wales and £90 in Scotland (see *RATES AND RATEABLE VALUES*, p. 43), and the premises let are self-sufficient in the sense that, whether they comprise one or two rooms only, or a whole house, no essential living accommodation is shared with the landlord, then any unfurnished letting of them is controlled by the Rent Restrictions Acts. A kitchen has, for this purpose, been held to be essential living accommodation, but a bathroom or lavatory may be shared. New houses and conversions completed after 30 August 1954, unless conversion carried out with the aid of local authority grant, are uncontrolled. So are lettings by local authority and by certain Housing Associations and New Town Development Corporations.

One result of this control is that the landlord can only recover the premises, even after the tenancy has terminated by expiry of an Agreement or by notice to quit, by going to the court and showing to the satisfaction of the judge that it is reasonable to order possession. The usual case is where (a) the landlord is prepared to offer alternative accommodation, or (b) he requires the premises for occupation by himself or his immediate family, and has not bought the property over the tenant's head.

STANDARD RENT

The Acts also preclude the landlord from recovering more than

the 'standard rent' and a few permitted increases. Information as to the standard rent must be furnished by the landlord on demand of the tenant. It may be possible to ascertain the standard rent by inquiry of the Local Authority. To work out the standard rent it is essential to know the history of the property back to 1914, or from its erection, if built later.

PROPERTY CONTROLLED BEFORE

If the house was built before 2 April 1919 and its net rateable value did not, before 1939, exceed £35 in London or Scotland and £20 elsewhere, then unless it had been converted into separate flats after 1919, or it had at some time since 1914 been wholly vacant or in the landlord's own occupation, it was probably rent-controlled before 1919—provided that it had been let at some time before 1 September 1919. In that event the standard rent is: (a) the rent at which the property was let on 3 August 1914; or (b) if it was not let on that date, the rent at which it was last previously let; or (c) if it had never previously been let, the rent at which it was first subsequently let.

PROPERTY CONTROLLED SINCE

If the property was not controlled by the Acts before 1919, then if its net rateable value on 1 September 1919, or when it was first subsequently assessed, was less than £100 in London, £75 rest of England and Wales, or £90 Scotland, any letting is controlled as from that date or from the date of the letting, if later, no matter when the property was built. The standard rent is determined by (a), (b) and (c) above, the crucial date being 1 September 1919 in place of 3 August 1914.

PERMITTED INCREASES

These differ for property controlled before and after 1919. *In all cases* (i) any increase in rates, if landlord responsible for them, and (ii) up to 8% of amount expended by him on improvements or structural alterations. *If the property was let before 1st September 1919, whether or not controlled before then*, also (iii) a repairs increase proportionate to the statutory repairs deduction. Twice this sum may be added when landlord does all repairs, if he has spent three times that amount on repairs in twelve of the preceding fourteen months. When landlord not responsible for internal decorations, two thirds of these amounts. The landlord must serve notice, with details. No controlled rent may be raised by this increase above twice the house's gross value for rating purposes. Slightly different amounts apply in Scotland. If standard rent on September 1st 1919 included services provided by the landlord, also (iv), the difference in their

cost on 3rd September 1919 and 30th August 1914. *In the case of property controlled before 1919* additional increases (v) up to 10% of standard rent when part of property sublet and (vi) not exceeding 40% of standard rent if landlord liable for all repairs and 15% otherwise. (Stationery Office booklet no. S.O. 75-31*, price 4d. explains in more detail provisions regarding (iii) and (iv) which came into effect on 30th August 1914.)

THE RENT TRIBUNAL

If the property is let furnished; or if as part of the tenancy agreement services, such as cooking or the use of a lift, are to be provided by the landlord; or in any case where the first letting is after 1 September 1919; or where accommodation is shared by the tenant with the landlord, the tenant or landlord may refer the matter to the local Rent Tribunal for the fair or standard rent to be fixed. Full information on this subject can be obtained from the Local Authority, which also keeps a register of premises of which the rent has been so fixed. The tribunal may grant a limited degree of protection from eviction, for periods up to three months at a time, to tenants on whose application it has fixed the rent of premises. (See also *RENTING A HOUSE OR FLAT: LEGAL ASPECT*, p. 29)

Renting a House or Flat: What to Look For

As a prospective tenant your first objective is to find suitable accommodation at an acceptable rent. A tenant is not, of course, so vitally concerned with either structural (for signs of damp penetration, see *BUYING A HOUSE*, p. 32), or aesthetic standards as an owner-occupier, but certain features are essential to comfort. These, mainly, are: (a) layout, size and aspect of rooms; (b) their adaptability for the needs of the household; (c) means of fuel storage; (d) services provided—electricity, gas, drainage, and water; (e) sanitary accommodation; and, for a flat, (f) means of approach, and reasonable freedom from annoyance by neighbours.

The ground floor accommodation of many of the houses built 'between the wars', particularly on housing estates, consists of what the estate agents term two reception rooms, kitchen and usual offices. A typical plan is shown in Fig. 1, p. 26.

Very often the two reception rooms are approximately the same in size, the one nearest to the kitchen being intended as the dining room. This arrangement is not necessarily the most satisfactory. Some families use the dining room as the main living room, particularly

when there are young children, keeping the lounge for use only when entertaining, or at weekends. In such cases, the dining room should have both a reasonably sunny aspect, the best being south to south-east, and a pleasant 'prospect', or outlook.

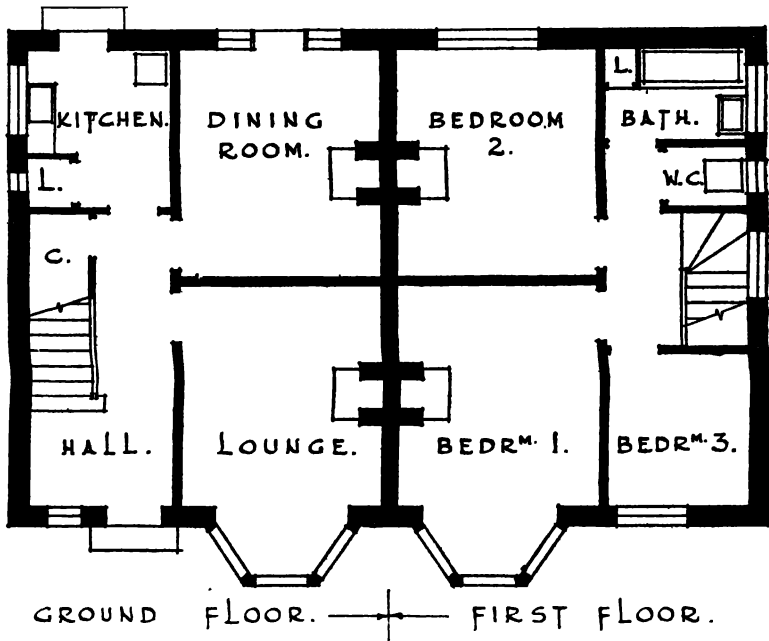


Fig. 1. Typical plan of 3-bedroom semi-detached house

If, on the other hand, you intend the lounge to be used regularly, reserving the dining room for meals only, then the lounge should have a good prospect and, ideally, get full sun during the afternoon and evening, which implies a south to south-westerly aspect.

The aspect of the kitchen is important. North-easterly, with larder on the north wall, is best. A kitchen facing south is undesirable as it may get unbearably hot during the busy middle of the day.

On many housing estates, aspect has been sacrificed in order to utilize to the full the ground available for development. In a fairly closely built-up area it is often difficult to assess the aspect correctly, so choose a sunny day to inspect likely properties, or carry a pocket compass so that you can check the aspect for yourself.

The dining room should be near to, if not actually adjoining, the kitchen, although in a small house this is not quite so important as might first appear. You may prefer to carry the meals the comparatively short distance to the front of the house in order to have the

most comfortable room available for the purpose you have selected. One fault with a great many small houses is that the kitchen door faces the front door. This means that the kitchen door must always be shut, otherwise any chance caller at the front door will have a good view of your kitchen, never the tidiest room in the house. (See Fig. 1)

SPECIFIC POINTS TO CHECK

FUEL STORAGE

Look carefully into this point. Many houses have quite inadequate storage accommodation, often away from the house itself, necessitating a cold, wet journey in winter to and from the house. Ideally, storage should be large enough to accommodate the full supply for the winter months. In a flat, there should be space for a week's supply in the flat itself, as well as bulk storage space allotted to each flat, probably in the basement of the building.

BUILT-IN FIXTURES

These are a great asset in any house; they save expenditure on independent furniture and make a house or flat much more habitable. The usual fixtures are kitchen cupboards, airing cupboard, and built-in wardrobes in the large bedrooms and possibly in the hall, also various shelves.

HOT WATER SUPPLY

The hot water supply may be provided by (a) an independent boiler in the kitchen; (b) a boiler incorporated with the cooking stove; (c) a back-boiler behind the grate in one of the living rooms; (d) a gas or electric water-heater. (See also *THE HOT-WATER SYSTEM*, p. 116) If the supply is either from (a), (b) or (c), look at the type of boiler or grate, to see whether it is reasonably up-to-date. A very old-fashioned boiler means that you will probably have to budget for much higher fuel costs than with the modern types now available. Also it will involve more work.

If the water is heated by gas or electricity, inquire whether the heater is included in the 'all-in' rent, or whether a quarterly hire charge is payable for it. An electric immersion heater is never hired out to consumers, but is purchased outright.

FIREPLACES

Take a good look at all of these, particularly in the living rooms. A fireplace often gives a clue to the age of the house. Old-fashioned grates need much more fuel than modern ones, and do not necessarily give out adequate heat. Lofty rooms, too, need much more heating than the normal 8-feet-high ones.

CONDITION OF FLOORS

The floors also indicate the age of the house. If the boards creak badly or are unduly worn, repairs may be necessary, particularly if you are contemplating staining them and using rugs instead of an overall carpet. Any signs of powdered wood indicate damp and possible dry rot.

MAIN SUPPLIES, ELECTRICITY, GAS, DRAINAGE AND WATER

In towns, these should all be available, although light and power may be provided by electricity alone. Check whether there are both light and power points in all the main rooms, including the kitchen (for a refrigerator, washing machine or other apparatus you may possess), and a power point so placed as to enable a vacuum cleaner to be used on the landing and stairs and in the hall. Again, inquire carefully about the electric or gas cooker; a hire charge may be involved here, too. Notice whether, if gas is installed, a gas point is provided in any of the living or bed rooms, so that you can have gas fires if you wish. If these are already installed, inquire once more whether they, too, are 'on hire'. Inspect the electric installation, noticing the type of wiring, whether surface or concealed, and whether the switches are of the modern type.

ENTRANCES TO FLATS

Has the flat an entrance common to several others? If so, who is responsible for cleaning the stairs or corridors? (It might quite easily be you!) Is there any arrangement for deliveries by tradesmen, parcel post, etc.; when the flat is unoccupied? The services provided may make all the difference between what at first appears a high rent and a reasonable one. Also, listen carefully while you are being shown around. You may be able to form an impression as to whether you are likely to be troubled by noise from neighbouring tenants.

THE LEASE

Having satisfied yourself on as many of the foregoing points as possible, make careful enquiry as to the lease offered. (See **RENTING A HOUSE OR FLAT: LEGAL ASPECT**, p. 29) If specifically stated in the agreement that the tenant is responsible for repairs and decorations to the whole of the interior of the house or flat during the term of occupancy (this is known as a 'Repairing Lease'), insist on a 'Schedule of Condition' being included in the agreement, to obviate any argument as to liability for repair or reinstatement on terminating the lease. This schedule should include a list of fixtures which are part of the house or flat. Fittings added

during the tenancy can, generally speaking, be removed on leaving. (See also **LEGAL ASPECT: FIXTURES**, p. 31)

One last hint; no layman can be expected to remember all these points when being shown over a house, so make notes of the items of vital importance to you, and be ready to jot down the answers to them as you go round the premises. You will find this a great help when you come to the point of deciding 'for or against'.

Renting a House or Flat : Legal Aspect § II

A ^{*}TENANCY or lease is a contract, even though it may not be in writing, by which the tenant undertakes to pay the rent and observe the conditions of the tenancy while the landlord agrees to allow the tenant to have peaceful possession of the property during the agreed period. In order to prevent fraud, the law requires a lease for more than three years to be granted by deed, but a tenancy for three years or less may be created either by written agreement or an oral one.

SPECIFIC POINTS TO NEGOTIATE

WHEN negotiating a letting, whether as prospective landlord or prospective tenant, try to come to a specific agreement with the other party on the following matters:

(a) THE RENT, AND DUE DATES

The tenant will want to know whether the property is controlled (for **POSITION OF A TENANT**, see p. 22), and a standard rent already

§ In Scotland, any let or lease for a period longer than one year must be in writing; in addition every lease, for whatever period, must state the date on which it begins, the date it ends, and the rent payable. In the case of house property, unless it is agreed otherwise in the lease, the landlord will be responsible for executing repairs. Where the rent is £26 a year or less, he is bound to keep the property fit for habitation. Rates are payable partly by owners and partly by occupiers. (See also **RATES AND RATEABLE VALUES**: p. 43).

|| In Scotland, a landlord has, except in houses subject to the Houseletting and Rating Acts, a right in security for one year's rent over the tenant's furniture and goods (but not over his clothes, money, or the tools of his trade) known as hypothec. This right the landlord can put into effect on application to the Sheriff Court, where he is given authority to sell sufficient of the tenant's goods to raise the amount due for the rent.

On the other side, a tenant is entitled to withhold the rent if the landlord fails in any important respect to keep the premises in the condition agreed on in the lease. If he takes this course, however, a tenant should offer to put the rent due on deposit in the bank. As in England a tenant may assign his lease as a whole or sublet the whole or part of the property unless the terms of his lease forbid it. But in Scotland if the tenant assigns his lease he is no longer liable for rent once he has intimated the assignation in writing to the landlord.

fixed, or whether, in the case of a furnished tenancy, a fair rent has been fixed by the tribunal.

(b) RESPONSIBILITY FOR RATES AND OTHER OUTGOINGS.

(See also RATES AND RATEABLE VALUES, p. 43)

Property tax will be payable to the Inland Revenue by the tenant as occupier, but he will be able to recover it by deduction from the next subsequent payment of his rent up to tax on the amount of his rent. In the case of blocks of flats not separately assessed, the owner pays the property tax direct to the Revenue. (See also FINANCIAL SIDE OF BUYING A HOUSE, p. 47; and INCOME TAX, p. 308)

(c) LIABILITY FOR REPAIRS AND DECORATIONS, INTERNAL AND EXTERNAL

The landlord cannot be made to do any repairs unless the agreement so binds him—except in the following cases: (i) A landlord who lets for less than three years a house or rooms at a rent not exceeding £40 in London or £26 elsewhere is bound to keep the premises reasonably fit for habitation. (ii) On a furnished letting, the landlord is taken as guaranteeing that the property is habitable. The tenant must in any case make good any actual damage done to the property, but will not be liable further in the absence of agreement.

(d) RESPONSIBILITY FOR INSURANCE. (See also INSURANCE, p. 298)

(e) THE USE TO WHICH THE PROPERTY MAY BE PUT

It is common for a tenant to be asked to agree to use the property only for a private dwelling house (this would preclude conversion into flats), or not to use the property for a specific trade or business.

Except with weekly or monthly lettings, it is an advantage for both sides to have an agreement in writing, and a wise and inexpensive precaution to have it professionally drawn. In addition to any charges for the preparation of the document, there will be a stamp duty amounting, generally, to £2 for every £100 of the agreed rent.

PREMIUMS

It is now illegal to demand a premium or key money from a tenant as consideration for letting or assignment of property within the limits of the Rent Acts, though compensation for expenditure reasonably incurred by the assignor may in some circumstances be obtained. Disguising a premium as an excessive price for furniture is not allowed.

RENT ARREARS

A tenant whose rent is in arrears may be sued by his landlord for payment, or for forfeiture of the tenancy. In the latter case the court may relieve the tenant from forfeiture if he applies promptly, but only on payment of the arrears and the landlord's costs. The landlord may also levy a distress for the rent, that is to say he may put in a certified bailiff to take and sell the goods or furniture on the premises (except bedding, table, wearing apparel, and the tools of the tenant's trade to the value of £5) to an amount sufficient to produce the arrears.

SUB-LETTING

Unless his agreement prohibits it, a tenant may assign or sub-let the whole or any part of the property, first obtaining the landlord's licence if the agreement so requires. An assignment is the transfer of the whole of the tenant's interest in the property for the remainder of the tenancy, although if the original tenant has expressly agreed in his original agreement to pay the rent throughout the tenancy, an assignment will not absolve him from future instalments. In this case, the original tenant is still liable to his landlord for the agreed rent and obligations. A sub-letting means that a fresh tenancy is created of which the original tenant is landlord and the new occupier tenant. The landlord may look to him if the assignee defaults or breaks a condition of the tenancy.

FIXTURES

Fittings and fixtures, including such things as shelves, cupboards, cooking and heating apparatus, may be, according to circumstances, regarded in law as either forming part of the house or separable from it. 'Landlord's fixtures' are those which cannot be removed without damaging the structure of the house; these, even when installed by the tenant, become the landlord's property and cannot be removed by the tenant without permission. Similarly, an owner who installs a landlord's fixture must stipulate before contracting with a purchaser if he wishes to take it away. In Scotland, although fixtures are not designated 'landlord's' or 'tenant's', the same general rules apply. All plants and trees in the garden are considered as landlord's fixtures.

Buying a House : General Points

THE prospective purchaser of a house has a great many more weighty matters to consider than the prospective tenant. True, all the items mentioned in *RENTING A HOUSE OR FLAT* (p. 25), need consideration, but often from a different point of view. In return for investment of capital: comfort, reasonable freedom from maintenance costs other than the normal repairs and renewals, and the sense of security which house ownership should bring, are rightly expected.

So, having satisfied yourself that the accommodation and amenities offered meet your needs, or that comparatively minor adaptations will achieve this, make sure of the structural stability of the house. It is worthwhile employing an architect or surveyor to give a professional report. This need not entail heavy expenditure, no more in proportion than getting a second-hand car 'vetted' by a skilled mechanic, which is done by most car purchasers. Unfortunately, there is no such thing as a 'guarantee' on a house!

The main structural items on which the architect or surveyor will report are the roof, walls, floors, and ceilings. Equally important are the drainage, water supply, plumbing, and hot water systems. He should also indicate what he considers to be a fair price for the property if in his opinion the price asked is too high.

If a mortgage through a Building Society or bank is contemplated, a professional report is always required. A Building Society will send its own surveyor to report on the property before entering into a mortgage agreement. (See *FINANCIAL SIDE OF BUYING A HOUSE*, p. 47)

STRUCTURAL FAULTS TO LOOK FOR

I. THE ROOF

Cracked or broken tiles or slates indicate likelihood of weather penetration. Repairs to roofs are costly, particularly if the roof covering is of hand-made tiles, which must be repaired with similar tiles if good appearance is to be maintained. Defective gutters may also cause endless trouble and expense. The presence of elaborate cowls on the top of chimney-pots indicates that there has been poor draught in the flues—the cowls may, or may not, have cured the trouble.

A great deal more can be seen from *inside* than from the *outside* of a roof; examination from the roof space or 'loft' is best. Look carefully around for any places where daylight is visible, particularly at the junction of the chimney stack and the roof, and for any signs of

damp on the ceiling joists. A boarded roof gives good insulation against cold and heat, but boarding is not essential as a protection against damp penetration.

2. THE WALLS

Examine carefully, both internally and externally, for any open cracks, particularly at angles between walls. The presence of cracks may indicate a settlement, or of war damage which has not been rectified. Look also for signs of damp penetration, particularly on the 'weather side' of the house. These are usually found around windows, indicating poor construction, or, on the ground floor, just above the skirting. This may simply mean that the earth in flower-beds against the house has been allowed to pile up against the damp-course, or it may mean that no damp-course exists.

3. FLOORS AND CEILINGS

Here again, instability is indicated by cracked ceilings or undue springiness in the floor as you walk across it. Worn boards may need replacement, and ceilings renewing. If kitchen or passage floors are of uneven stone or cracked concrete they may need re-surfacing.

SANITARY AND OTHER SERVICES

MAKE very careful inquiry as to drainage, whether the house is connected to a main sewer, septic tank, or cesspool. The latter entails arrangements for emptying the cesspool by the Local Authority's cesspool emptier, which may, or may not, be included in the rates. This contingency is only likely to arise in country districts.

In all modern houses, mains water, gas, and electricity should be available. Check that this is so, and ask for particulars of water rate, tariffs, etc., if the locality is a new one to you. Examine the electric and gas installations. See whether the number of points is adequate for your needs and especially if the electric wiring is in good condition or not. Find out whether any appliances are the property of the vendor, *and are included in the price of the house*, or whether there is a hire charge for them. The value of the property will also be influenced by the type of hot-water system. (See HOT WATER SYSTEMS, p. 116)

Always look at the house from the point of view of whether or not it is easy to run. Old-fashioned fire-places or heating installations will cause more work, and so possibly increase labour costs. The layout of rooms and the finish of wall surfaces, etc., are important from the labour angle, too. Other factors that will influence running costs are lightness, or otherwise, of rooms; the facilities for washing and drying clothes; and the distance from stations, shopping centre, schools, etc. Take into account the amount of redecoration necessary before you can occupy the house happily. An architect or surveyor

would include an approximate estimate for this in his report, if asked.

Remember also that the Surveyor to the Local Authority can help you. On application, he will give information as to main services, particularly drainage and the likelihood of any developments, such as road-widening, contemplated by the Local Authority which may affect the property. He may also know whether there is any likelihood of factories, or a power station, being built near the house, or whether any near-by district is scheduled as a new housing estate. Factors such as these will affect the future value of the property.

A personal call at the Council Offices or Town Hall is always worth while before completing a purchase. (See also FINANCIAL SIDE OF BUYING A HOUSE, p. 47; RENTING A HOUSE OR FLAT, p. 25)

Buying or Selling a House : Legal Aspect ¶

THE legal technicalities connected with the sale and purchase of a house spring largely from the fact that houses and land are not capable of being physically delivered by one person to another, as are even the most expensive articles of furniture and jewellery, for instance. Hence the owner's entitlement to land must be evidenced by title deeds or other documents drawn up in a recognized form.

¶ In Scotland before any person can acquire completed rights in heritable property the deed by which he is given those rights (whether it be the deed which originally grants the feu to a feuar or vassal, or a conveyance by a feuar to a purchaser, or a bond (mortgage) pledging the feu in security for a loan) must be recorded in the Register of Sasines kept in Edinburgh. The Register is open to the public, and anyone who knows where to look and what to look for can find out who owns any particular piece of property, and whether it is affected by a bond or any other adverse rights. The title deeds are duplicated in the Register, and if any of the originals are lost they can be replaced by copies taken from it.

When a house is bought or sold, the bare bones of the agreement, such as the price and the date on which the purchaser is to get possession, may be agreed by the buyer and seller or through estate agents. Before the agreement becomes enforceable, however, it must be put in writing, and it is advisable to consult a solicitor when this stage is reached. The written agreement usually takes the form of formal letters exchanged between the solicitors acting for either side, known as missives. At this stage the buyer may take out his insurance, or may have the existing policy endorsed to show his interest.

Thereafter the buyer's solicitor examines the titles and prepares the conveyance, and, once this is executed by the seller, arranges for and carries through the settlement of the transaction. He will also in the meantime have had a search made in the Register of Sasines to make sure that there are no rights adverse to the purchaser affecting the property which do not appear in the title deeds.

Solicitors' fees are on a fixed scale: the cost to a purchaser at a price of £2000 being £33 0s. 0d., and to a seller, £22 0s. 0d. The stamp duty payable on the conveyance is the same as in England.

Even when it is registered at the Land Registry (an official organization for recording the title to land and certifying it under State guarantee), many facts about the property need to be investigated on behalf of a purchaser before he can safely pay over his money and take a transfer of the house and land. The work of marshalling all the necessary information on behalf of the seller and of examining it all on behalf of the buyer, and the preparation and approval of the documents whereby the transaction is effected, is work for which a solicitor is trained, and one should be employed to act for each party.

The solicitor's charges are regulated by statute, and vary with the amount of the purchase price. On a transaction of £2,000, for instance concerning unregistered land, the cost to the seller and buyer, will be £37 10s. each including the cost of the contract, the transfer deed and the negotiation involved. In respect of registered land the charge is somewhat less, but a Land Registry fee is payable in addition. If an estate agent is negotiating the sale, make it clear to him in writing, that you are to be liable for commission only in the event of a completed sale.

CONTRACT

It is to the advantage of both parties to have a formal contract for the sale of the house prepared by a solicitor. Until this can be prepared, any agreement or deposit receipt should be expressed to be 'subject to contract'.

POINTS TO WATCH

The purchaser can usefully inquire at this stage whether the property is subject to any restrictions or stipulations, whether it is subject to the Rent Acts and, if so, the standard rent which will bind him if he wishes to let the property. The parties should also agree on the question of fixtures (see *FIXTURES*, p. 31).

INSURANCE AND COMPLETION

When the formal contract is signed and exchanged, the property will be at the purchaser's risk, and he should be careful to see that it is adequately covered by insurance against fire. From that time, too, either party is entitled, subject to the terms of the contract, to insist on the completion of the transaction, by recourse to the court if necessary.

The conveyance will then have to be stamped at the rate of £2 per £100 of the purchase price, and if the title is registered at the Land Registry the transfer must be registered there. (See also *FINANCIAL SIDE OF BUYING A HOUSE*, p. 47)

Building a House : Preliminary Negotiations

THE prospects of those contemplating building their own house are brighter at the present time than they have been since 1939. Controls exist, but there is no longer any need to obtain a building licence. The limiting factor today is, as it has always been, the cost of building.

The first step is, of course, to find a suitable site. This often means protracted search and possibly many disappointments before success is achieved.

When you do find what appears to be suitable, at a price within your means, urgent preliminary action is essential before the purchase is completed. Right away, ask for appointments with the Town Planning Officer and the Surveyor to the Local Authority in whose area the site is situated. The latter will supply information as to main services available, such as water, drainage disposal, gas, and electricity. The Town Planning Officer will advise as to whether the site is approved for residential development under the Town and Country Planning Act and the Highways Act.

THE TOWN AND COUNTRY PLANNING ACT

This Act is administered by the Local Authority in large towns and cities, and by the County Council in urban districts and rural areas; it affects to the greatest extent the possibility of building. Under this Act, the general type and value of the proposed house must be approved, and direction may be given as to the external treatment, including type of brick used, colour and type of roofing tiles, etc.

The development of land for residential purposes is still controlled, although the development charges have now been abolished. The primary object of the control is to limit, as far as possible, the spread of housing and industrial areas into the countryside, thereby preserving arable land for agriculture. Again, near to large towns, certain areas have already been scheduled as 'green belts' or 'amenity areas'. It is therefore essential to establish at an early date that a site which you would like to purchase is not restricted in this way. Enquiry should be made from the Surveyor to the Local Authority *before* any steps are taken towards purchase.

Complete plans, including the site plan showing the position of the house with the proposed drainage system and a specification of materials, are prepared. These, together with an approximate estimate of cost, and formal applications for approval under the Bye-

laws, under Town and Country Planning, are submitted to the Surveyor to the Local Authority. He passes them forward for consideration by any other authorities concerned.

THE HIGHWAYS ACT

This is administered by the Ministry of Transport through the Local Authority, and governs the provision of any new access from a road to a new property, or the widening of an existing access.

All these formalities, protracted and irksome as they may appear, are measures designed to protect the interests of the community as a whole, including you. The applications and negotiations need technical knowledge, and it is therefore essential to appoint someone to act on your behalf. Who shall this be?

THE QUESTION OF AN ARCHITECT

Many people believe that the employment of an architect will perforce increase the cost of the house unduly. This is a mistaken impression. For a fee based on the cost of the house he will take responsibility for the whole of the preliminaries, designing the house, obtaining reliable and competitive estimates, drawing up the contract, supervising the erection, and checking the builder's final accounts. All these are his recognized job, which he will take in his stride. There is a recognized scale of professional charges issued by the Royal Institute of British Architects, in which the fees chargeable for all types of professional service are laid down. A copy of this can be obtained on application to the Secretary of the Institute at 66 Portland Place, London W 1. The Institute will also advise on choosing an architect if you do not know of one.

Alternatively, you may decide to deal direct with a builder. Disadvantages are that, having committed your project to him, you are entirely in his hands as to cost; who is to advise you as to whether his estimate is a fair one, or whether the materials he proposes to use are the best for the purpose? Having asked him to prepare a scheme and give you his estimate, you can scarcely go elsewhere for confirmation or otherwise. The architect, on the other hand, can do this, as *he* prepares the plans and specification on which tenders are invited, and obtains competitive estimates *all on the same basis*. If the project is a big one, you may agree to the employment of a Quantity Surveyor, who will prepare a Bill of Quantities containing the measured amounts of every kind of material and labour required, on which the competing builders quote. On small contracts this is not usually necessary, the architect undertaking the whole of the responsibility.

PAYMENT TO THE BUILDER

Under the R.I.B.A. Form of Contract, the terms of payment to the builder are as follows:—At intervals of one month from start to completion of the work, the builder makes application to the architect for the issue of a certificate. These certificates, which must be honoured within fourteen days of issue, are presented to the client for payment. The architect authorizes payment after assessing the value of work done and of materials on the site, but keeps back ten per cent of each certificate until the end of the maintenance period, usually six months after completion. At the end of the maintenance period, he inspects the house in the company of the builder, and draws attention to any defects which may have appeared during the six months since completion. The builder is responsible for making these good and is then paid the ten per cent outstanding.

If no architect or surveyor is employed, the builder will himself suggest suitable terms for payment. These are usually based on agreed stages of completion, such as when the house has reached ground-floor level, first-floor level, roof level, and so on.

It is possible to arrange for partial service by an architect, if his full services are not required. For example, he may be employed to 'vet' plans prepared by the builder, check and advise on the builder's specification, inspect the work in progress at agreed intervals, and check the final accounts. A reduced fee for services of this kind is laid down in the R.I.B.A. scale of charges mentioned on page 37.

One last word, regarding rateable value. It is possible to obtain guidance as to the *approximate* rateable value likely to be put on a property by applying to the Rating Officer of the Local Authority. This is best done through the Surveyor to the Authority, who will advise as to the procedure. The *actual* rateable value is, of course, assessed after the completion of the work. (See also RATES AND RATEABLE VALUES, p. 43)

Building a House : Drawing up Plans

ONE of the chief difficulties of the intending house builder is to put down on paper, in a form intelligible to anyone else, the scheme he has in mind. Nevertheless, is not one of the joys of the early stages of such a project the sketching of possible plans?

The easiest way to do this is to obtain some squared graph-paper. For sketching house plans, paper divided into inch squares, and subdivided into ten squares 'each way' inside the inch square, is best. Each of the smaller squares represents a foot, so that if you are thinking of a dining room 15 feet by 10 feet, you simply count fifteen lines in one direction and ten in the other, draw lines over the lines already given on the paper, and there is your dining room.

For ordinary purposes, a single line representing the containing walls is sufficient at this stage, but don't forget to allow for wall thicknesses in your calculations of space required. Remember also that if you plan a fireplace in a ground-floor room, the flue from this fireplace and the brickwork surrounding it must pass through the first-floor room over, and up to the roof, whether you intend to have a fireplace in the first-floor room or not! Similarly, the staircase passes through two floors, and there must be 'headroom' over the staircase, otherwise it is useless. Fig. 2 shows a typical sketch plan drawn on squared paper, and also shows the method of indicating doors, windows, fireplaces and staircase.

The choice of layout is largely a matter of personal preference, providing that the recognized principles of good planning are followed. These are briefly outlined on pp. 25-27 (see *RENTING A HOUSE*), but, of course, when building greater flexibility and ingenuity are possible. Perhaps a word of warning is necessary here. It is a mistake to plan too much to individual ideas, for the simple reason that a house should always be considered from the point of view of saleability. A house full of 'fads' is unlikely to fetch as good a price as one cleanly planned, with a good layout which will meet all needs.

LAYOUT

It is much less costly if all the rooms requiring drainage connections are grouped together, i.e., bathroom over kitchen, cloakroom on the same side of the house as the kitchen so that the same drain can be used for both, lavatory basins in bedrooms arranged 'back-to-back', etc., etc.

If you are planning a small house within your means to build at

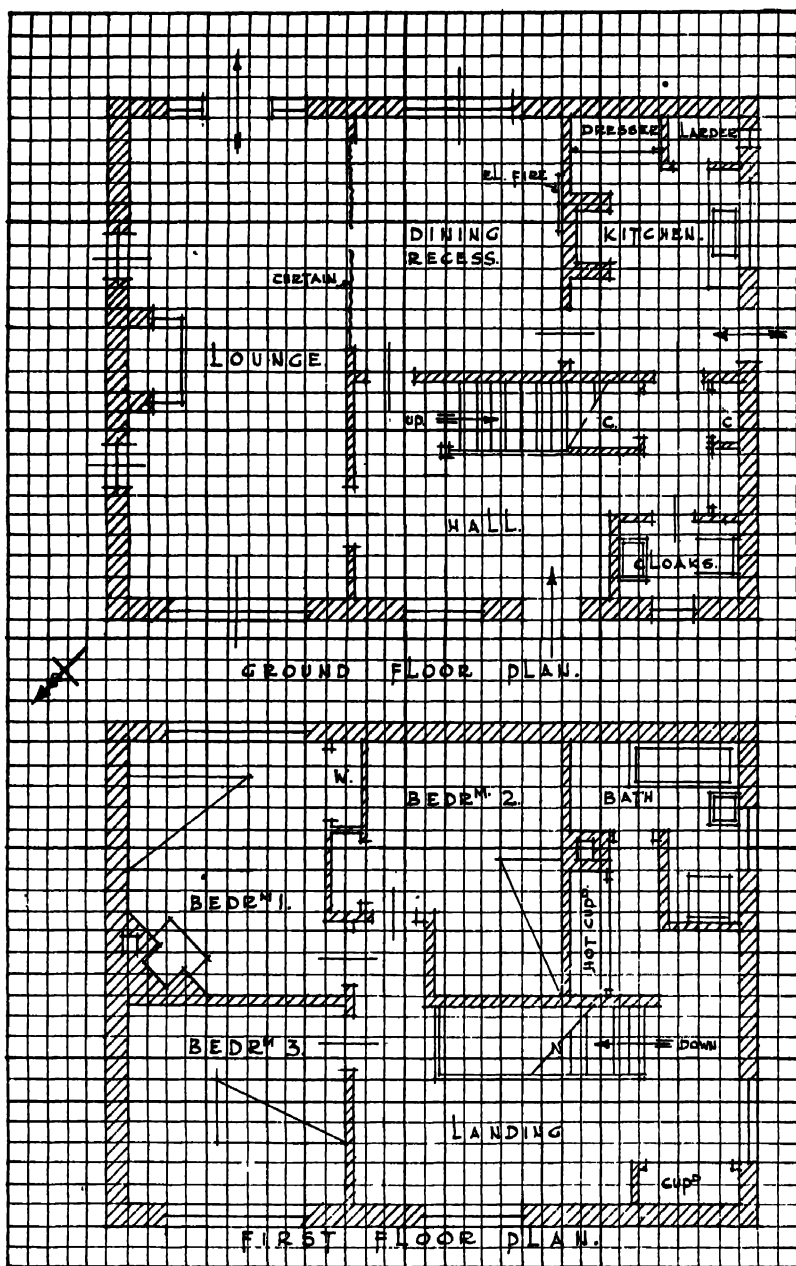


Fig. 2. Typical sketch plans of house

the moment, it is, generally speaking, much better to have one large living room, say with a dining recess, than to have two mediocre rooms. An additional small room on the ground floor which can be used as a nursery, as a quiet room in which the children can do their homework, or as a bedroom in case of illness, is an invaluable asset in the average family house.

LIMITS AS TO COST

Again, the house 'within your means at the moment' may need enlarging as your family grows. In these days when building costs are so high and still rising it is false economy to try to cram every possible gadget and fitment into it, making the rooms crowded before you begin to furnish them. It is far better to provide only for essential needs, and to arrange the plan so that further accommodation can be added easily without interrupting the 'circulation' from room to room. Fig 3, page 42, shows a simple layout adaptable to extension in this way. (See also ALTERATIONS AND ADDITIONS, p. 44)

BUILT-IN FITMENTS

The extravagant use of 'fitted furniture' such as wardrobe cupboards and kitchen fitments is regarded by some people as the acme of perfect planning, but a little thought will suggest this is not necessarily true. Built-in fitments take up valuable wall space and do add greatly to the cost. The provision of a built-in wardrobe in each bedroom, a linen cupboard on the landing near the bathroom, a cupboard for coats in the hall, is usually all that is necessary except for the kitchen.

Here common sense is necessary. What is the use of an elaborate array of fixtures if you have to close one door before you can open another, or if you make yourself giddy turning round in the small floor space left? On the other hand, a well-fitted kitchen cabinet, a dry goods cupboard, a broom cupboard and built-in cupboard under the sink for saucepans, etc., not to mention the invaluable plate-rack do help efficiency. In addition, a cool larder which is really part of the house itself is essential.

As far as the exterior of the house is concerned, avoid too much elaboration, and omit any 'features' which are intended to be decorative, but which in fact merely stamp the house as a 'suburban villa', using this term in its worst sense. A simple treatment, with windows pleasantly spaced, carefully chosen bricks or stucco, and well-made, well-burnt tiles for the roof, will give a much more dignified and pleasing result. In these days, any tendency towards over-elaboration is generally ruled out on grounds of cost. Very careful

thought and planning are necessary simply to provide the essential structure within the limits of the average pocket.

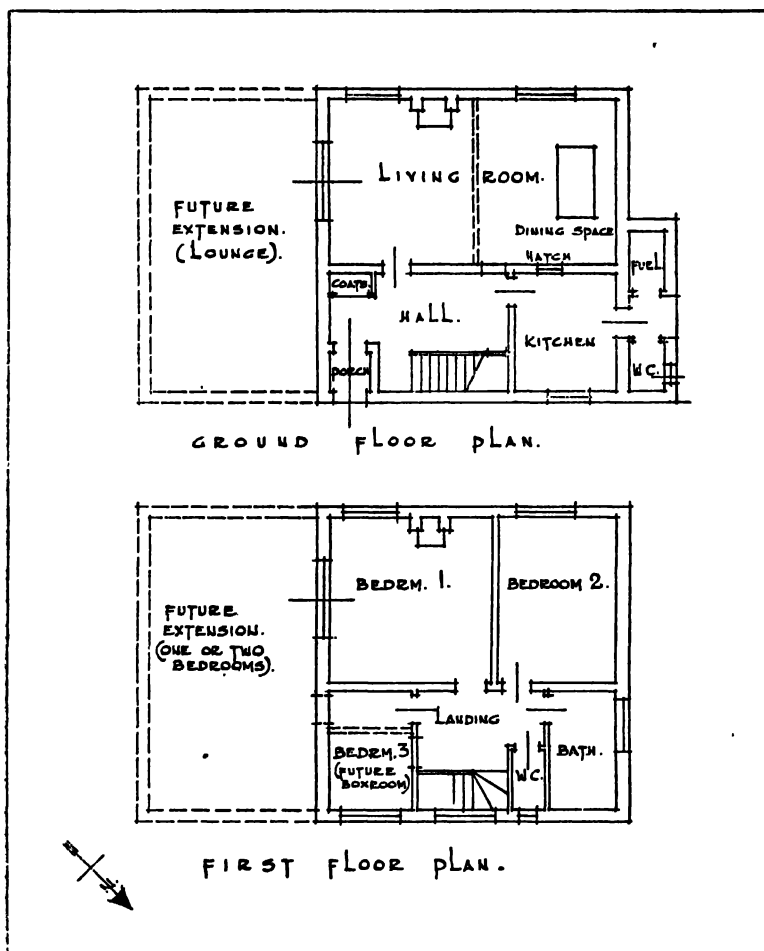


Fig. 3. House planned for future extension

METHODS OF HEATING AND HOT WATER SUPPLY

THERE are now advice bureaux attached to the solid fuel, gas and electrical organizations from whom expert guidance can be obtained. Useful sources of information are the Building Centres in London and Glasgow where appliances of various kinds are displayed, and which are open to the public without charge. Any appliance exhibited there has already been approved as reliable, and a visit in the early stages

of a project is well worth while. There is also the advantage that no obligation to any one firm is incurred. (The comparative costs of solid fuel, gas, and electricity are now so close that individual circumstances are the best basis on which to decide. If you like an open fire, then an efficient type can be obtained. The same applies to gas and electricity.) (See also *HOUSEHOLD INSTALLATIONS*, p. 117)

NEW TECHNIQUES AND NEW MATERIALS

HERE again, the Building Centres are most useful sources of information. Every type of reliable material can be seen there, and a preliminary selection made. Beware of putting too much trust in new materials or methods, unless the makers can assure you of authoritative tests and proved reliability over a sufficient period of time.

Rates and Rateable Values**

RATES are payable (usually half-yearly) by the occupier of property, but the landlord may make himself liable to the local council for the rates on certain property which is let. Rates are not levied on property which is unoccupied. They are recoverable, in case of non-payment, by distress, that is by the seizure of goods on the premises (see also *RENTING A HOUSE OR FLAT*, *LEGAL ASPECT*, p. 29).

A new system of valuation and assessment came into operation in February 1950, but its application universally has been deferred until at least 1956.

VALUATION

Valuation lists are periodically prepared by the Revenue authorities showing the gross annual value at which it is proposed to assess the individual properties shown on the list. It is expected that all dwelling houses in the country will be revalued by 1955 or 1956. The gross value is calculated in the case of ordinary dwelling houses on the estimated 1939 rent for comparable local buildings on the

** In Scotland, every separately occupied property has an assessed rent. This represents the rent at which the property is worth to be let for a year, and the figure is fixed by the local Assessor. Every owner or occupier of property should receive each year a notice showing the assessed rental of his property for the year, and he may appeal against this figure to a local valuation appeal court in the first instance, and from there to the Lands Valuation Court in Edinburgh. Where property is let unfurnished for a year or more on the usual terms, the rent payable automatically becomes the assessed rental.

Rates are levied by the Local Authority on the basis of the assessed rental, a proportion being payable by the owner and the balance by the occupier. Where a person both owns and occupies property he pays both owners' and occupiers' rates. The proportions payable by owner and occupier are fixed by the Local Authority, and separate demand notes are sent to each.

basis of the tenant paying rates and the landlord paying for repairs and insurance. The locality is to be assumed to have been in the same state as regards other buildings, transport facilities, amenities, etc., in 1939 as it is at the time of valuation. From this gross value a fixed deduction is allowed for repairs and insurance.

APPEALS

An appeal against the proposed valuation may be made to a local valuation court, with the right of further appeals to the Lands Tribunal, and thence to the Court of Appeal.

AMENDMENT OF LIST

From time to time the valuation list may be amended, for instance when new premises are first occupied or when an alteration to existing premises increases or diminishes the annual value. There is a right of appeal against any proposal for amendment (see also ALTERATIONS AND ADDITIONS TO A HOUSE, p. 45)

Alterations and Additions to a House

LEGAL ASPECT ††

BEFORE hatching your plans for an extension, or any other alteration, to your house, even if it is nothing more than the conversion of it into flats, you should ask yourself these questions:

- (1) AM I PREVENTED BY ANY CONTRACT I HAVE MADE OR ACCEDED TO?

If you are a leaseholder or tenant you will generally have to obtain the consent of your landlord. Moreover, the benefit of your labours will pass to him at the end of your tenure. Even freehold property (see also POSITION OF A HOUSEHOLDER, p. 19), is frequently subject to restrictions. If the restrictions were imposed many years ago it is possible that they may have become inappropriate to the character of the neighbourhood and that the Lands Tribunal has power to vary them.

†† In Scotland you will, if you own your property, have to consider whether your plan infringes any of the conditions laid down by the superior when the feu of your property was originally granted and if so, whether he may be willing to forego or alter the conditions. (see POSITION OF A HOUSE OWNER: Note †, p. 21). In the case of a leaseholder, it is not as a rule worth while embarking on any extensive alterations, because it is unlikely that the lease will have long enough to run to justify the expense. It is, however, quite common for landlord and tenant to arrange to share the expense of alterations.

(2) SHALL I BE INFRINGING A NEIGHBOUR'S RIGHTS?

For instance, if an adjoining owner has a side window overlooking the boundary between the two properties, which has 'enjoyed' light and air for a period of twenty years, he can claim a right of light, precluding you from building up a wall which will block that light. Remember that the next-door house may easily be very much older than yours! Also your neighbour may, especially if his buildings extend to your boundary fence, have a right to have his land and buildings 'supported' by your land, so that you would not be entitled, for instance, to dig away an approach to your proposed garage which would destroy that support. In addition, of course, your operations must not be such as to constitute a nuisance (see also RESPONSIBILITIES OF A HOUSEHOLDER, NUISANCE, p. 20).

(3) DO I NEED THE PERMISSION OF ANY PUBLIC AUTHORITY?

It is probable that you do. Certain small outbuildings are, however, exempt from the general requirement of permission, as are also generally fences, walls, and gates which do not exceed 7 feet in height or lead directly on to a highway. *Any alteration to the structure of a building* comes under the jurisdiction of the Local Authority. This applies even to such items as the addition of a porch, the provision of an additional window, or the alteration of a garage. Any work of this kind must conform to the Byelaws of the Local Authority and be approved *before* it is started. Failure to obtain such permission may, if the Local Authority enforces its statutory rights, result in an order for the work to be pulled down and the building reinstated as before. Alterations and additions are subject to approval under the Town and Country Planning Act and the Highways Act in exactly the same way as a new building. (See also BUILDING A HOUSE—PRELIMINARY NEGOTIATIONS, p. 36)

It is a wise precaution to consult the local Town Planning Officer in the very early stages of the project, so as to find out whether any developments are contemplated, either on your own site or in the neighbourhood, which will affect the scheme either from your point of view, or that of the Local Authority.

RATE INCREASE

When the alteration is complete it may be found that the value of the property for rating purposes has been increased. The council will in that case serve notice of a proposal to increase the rateable value and the occupier and any other person interested will have the opportunity of appealing. (See also RATES AND RATEABLE VALUES, p. 43)

TECHNICAL POINTS

THE SANITARY SYSTEM

Rooms such as bathrooms, cloakrooms, and w.c.'s *must* have one outside wall, so any new addition must be planned to leave these clear, or the sanitary system be completely rearranged. Remember too that no existing drains under the site of the new extension may be built over unless they are encased in concrete. Should a manhole occur within the area of the extension, major alteration of the drainage system may be entailed.

Consider these factors carefully when thinking of extensions as they may govern entirely the basic planning.

THICKNESS OF WALLS

Existing walls may not be thick enough to carry the weight of an additional storey. There are byelaws in all areas governing the height of walls in relation to their width. It may therefore be necessary to increase the thickness of the existing wall, or to rebuild it entirely. This will involve shoring up the first floor or possibly the roof—a costly business.

PROVISION AGAINST FIRE RISK

When adding a bedroom over a garage, it is essential to introduce some adequate provision against fire risk. The garage may have had a flat timber roof which is now to become a floor. The usual method is to line the underside of the garage ceiling with asbestos or other fireproof material. Without this provision no fire insurance will be obtainable on the new bedroom. In most cases, the joists forming the roof are not strong enough to carry a floorload, and must be strengthened or replaced by joists of the requisite size.

The sound planning of alterations and additions needs great skill, so it is advisable to consult an architect. When dealing with period houses, or houses built 'in the vernacular', particularly, this course is absolutely essential, otherwise the whole character of the original house may be lost. The wise architect, too, will recommend the employment of a builder experienced in this type of work.

Insurance of House and Contents ‡‡

A PERSON interested in house property should see that it is adequately insured against fire. A tenant is equally interested with his landlord, for if a fire destroys the building the tenant's rent will con-

‡‡ In Scotland, if property is accidentally destroyed (e.g. by fire) the lease comes to an end and with it the obligations of owner and tenant to one another. No rent is due.

tinue payable. (See also POSITION OF A TENANT, p. 22) Further the furniture and other contents may be covered either under the same or a separate policy. It is prudent to insure also against aircraft risks, loss by theft, explosion, lightning, storm, bursting of water pipes, and liability to the public. A comprehensive insurance is obtainable from all the main offices and this covers the contents of a house for all the risks named and some others besides, at a premium of 5s. per £100 of the declared value. Buildings may be covered for fire at 1s. 6d. per £100, or comprehensively at 2s. 3d.

Financial Side of Buying or Building a House §§

A PURCHASER of house property is often unable to find all the purchase money at once. Exceptional circumstances apart, it would be very imprudent for the seller of a house to allow payment of the purchase price to be deferred or paid by instalments in the ordinary sense. Nevertheless the same result so far as the purchaser is concerned may be achieved by his obtaining a loan secured by a mortgage on the property. The purchase is carried out in the purchaser's name, and he becomes legally the owner of the property, but the money is largely provided by a lender who is entitled to retain the title deeds.

METHODS OF FINANCE

Mortgages for periods up to twenty years and more are granted by Building Societies and Insurance companies. They charge interest on the amount of money from time to time outstanding, the advance being usually re-payable by monthly instalments each of which represents a combination of principal and interest. Most Local Authorities are also empowered to advance money on this type of mortgage.

In some cases Societies permit an Endowment Policy to be taken out on the borrower's life. The premiums on the policy take the place of the repayments of capital (though interest is still payable) and the policy is timed to mature at the end of the mortgage period so as to extinguish the outstanding advance. If the borrower should die before the end of the period, the policy moneys again wipe out the mortgage debt leaving the property to pass outright into the borrower's estate.

A private mortgage to an investor who will, however, generally

§§ In Scotland there are differences in form in the legal documents used to give effect to these transactions, but the practical effect is very similar, and the methods and sources of finance are identical: i.e. private lender, Building Society or Bank.

retain the right to call in the loan at, say, six months' notice is another possibility. Private mortgages do not as a rule provide for periodic repayments of capital.

A *Bank Loan* may sometimes be obtained to finance part of the transaction if the advance is wanted for a short time only—say a year or two. Some further security is, however, usually required. (See *BANKING AND THE ORDINARY MAN AND WOMAN*, p. 306)

In any case you should approach your proposed lender as early as possible. Your solicitor or bank manager will put you in touch with a Building Society. The lender requires legal representation and he will certainly also wish to have the property surveyed—at your expense. In the case of a Building Society, the fee for the Society's surveyor must be paid in advance. It is wise, if possible, to obtain a definite offer of an advance from the Building Society or other lender before you sign a binding contract to purchase.

AMOUNT OF ADVANCE

Lenders will not advance more than a percentage of the market value of the property or the purchase price, if less. Brochures may be obtained from the Building Societies and Insurance companies setting out their terms. Methods of increasing the advance are:

- (1) The provision of collateral security, e.g. a mortgage on other property.
- (2) A guarantee policy from an Insurance company.
- (3) A guarantee by a relative or friend.

ENFORCEMENT

After the completion of the transaction the lender can enforce payment of the agreed instalments by action in the courts, which may have the effect of divesting the borrower of his title to the property, or in case of default he may sell or let the property to recoup himself of his loss. He is not bound to hold out for any particular price. If the sale produces more than is due to him the lender must hand the excess to any second mortgagee. Nothing is available for the borrower until all mortgagees have been paid off.

RUNNING EXPENSES OF HOUSE

Besides any ground rent (in Scotland, feuduty), head rent, and mortgage payments which fall to be paid, the owner-occupier of a house must budget for rates, property tax if freehold, and fire insurance premium, and should also allow for the cost of periodical decoration and repairs.

Property tax is income tax on the estimated net annual value of premises (see also *INCOME TAX*, p. 308), and is payable on 1 January

each year. Relief from income tax is obtainable in respect of mortgage payments so far as they represent interest, as distinct from repayment of capital. In the case of Building Society mortgages the interest is paid in full and the society notifies the Inspector of Taxes what relief is appropriate to be allowed in the borrower's tax assessment. From all other mortgage interest, except on short loans by a bank, tax at the standard rate is deductible by the borrower when the payment is made. If he has taxed income of at least an amount equivalent to the interest, he may retain the tax in relief of his own pocket. Otherwise he must pay it over to the Revenue.

Furnishings: Hire Purchase

THE usual type of hire purchase agreement provides that the seller is to remain the owner of the article throughout the period covered by the instalments, the buyer having the option to purchase it by paying the final instalment. The buyer must in the meantime keep the goods in repair, unless the seller specifically undertakes servicing or maintenance, as is sometimes the case with mechanical apparatus. The buyer must in any case not damage the goods wilfully or by neglect.

AGREEMENTS UNDER THE 1918 ACT §§§

In the case of agreements to buy certain goods, including furniture and similar articles for a total hire-purchase price not exceeding £100, Parliament has laid down certain conditions as follows for the protection of the buyer:

- (1) The price at which the goods may be bought outright for cash is to be marked on the goods or shown in a catalogue or stated to the buyer at the time of purchase.
- (2) The buyer must personally sign a memorandum stating:
 - (a) the hire purchase price;
 - (b) the cash price;
 - (c) the amount of each instalment and when payable;

§§ In Scotland there is no Act corresponding to the Hire Purchase Act 1938 in England. A buyer should where possible insist that the terms of his agreement will follow those laid down by that Act.

The only hire purchase agreements regulated by Statute in Scotland are those governed by the Hire Purchase and Small Debt (Scotland) Act 1932 which does not apply to contracts for the purchase of articles exceeding £20 in value. The statutory requirements are: (1) The contract must be signed by the buyer and a copy of it must be given to him when he signs or within a fortnight. (2) The buyer may end the agreement by returning the article and paying all instalments due and unpaid plus the amount, if any, required to make up one-third of the total price payable. (3) Any agreement not complying with the statutory conditions is void, as is any agreement to settle any dispute in any particular court.

- (d) a list of the goods; and
- (e) a notice informing the buyer of the statutory conditions.
- (3) A copy of the memorandum must be supplied to the buyer with seven days.
- (4) At any time while the agreement is current the buyer is entitled on payment of one shilling to be informed of the state of account between the parties.

STATUTORY CONDITIONS

The conditions applied by the Hire Purchase Act 1918 to the agreements mentioned above restrict the seller's right to recover the goods, and confer on the buyer a right to terminate the agreement. Such termination is to be by written notice to any person who is entitled to collect or receive the instalments. The buyer must first pay any instalments which are in arrear at the time of the notice, and must also, if necessary, make up the total paid to a minimum sum mentioned in the agreement (usually one-half of the hire purchase price). He remains liable for damage caused by his neglect.

The seller cannot recover the goods after one third of the hire purchase price has been paid unless the buyer himself terminates the agreement or the seller obtains an order of the court.

NON-STATUTORY AGREEMENTS

The conditions mentioned above do not apply to agreements above the limits mentioned. However, it may be remembered that Parliament devised these conditions as being fair between both parties to the agreement, and *it is not a bad principle for a buyer to decline to enter into an agreement which does not give him equivalent protection. He should beware particularly of any clause taking away his right to determine the agreement.*

Furnishings in General

HOW TO PLAN YOUR FURNISHING SCHEME

THE most successful home is the one planned on paper first; the least successful the one 'bought off the peg'. It is not unknown for furnishers to advertise 'This room can be yours for . . .', forgetting that *that* room can never be yours because yours will be an entirely different shape and size, and you bear no relation to the sleek and standardized dummy that poses in the easy chair.

Paper planning must be of two kinds: (a) financial resources, (b) actual space available. There are still countless thousands who walk out of a shop having bought a bedroom suite that cannot pos-

sibly go into their bedroom and ends by being split up, with one piece cluttering the landing! If your house has been built for you, you'll already have the architect's plan, usually to a scale of half-an-inch to a foot. If not, it's comparatively easy to draw a rough scale plan of the room which will be quite accurate enough for your purpose.

Most furniture is more or less standard in size, so cut out from cardboard the plan-shape of the main pieces you need, to the same scale as the room plan. These you can move around until you get the ideal arrangement.

MAKING CARD MODELS

For instance, with a scale of half-an-inch to a foot, a piece of card $3\frac{1}{2}$ in. x $2\frac{1}{4}$ in. represents a double bed or divan (6ft. 2in. x 4ft. 6in.) a

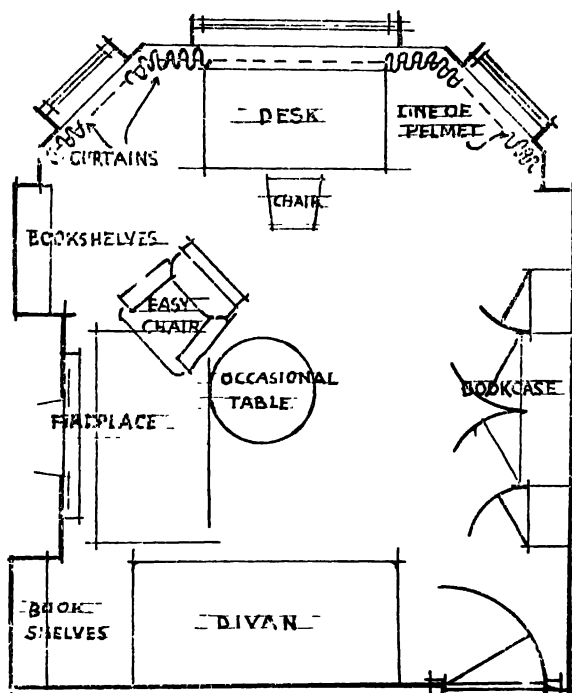


Fig. 4. Planning your furnishing scheme to scale with card models

piece 2in. x $\frac{3}{4}$ in. the normal full size wardrobe (4ft. x 1ft. 9in.); another rectangle $2\frac{1}{2}$ in. x $1\frac{1}{2}$ in. serves for a fully extended dining table (5ft. x 3ft.) which normally closes up to 3ft. square. (See Fig. 4.) If a 4ft. wardrobe crowds the bedroom, try the effect of one 3ft. or

3ft. 6in. wide. Upholstered pieces are less standardized, but the average two-seater settee is about 4ft. 6in. overall length and an easy chair some 2ft. 6in. If necessary, measurements can be taken in the shop and the effect tried out on the plan.

In other cases, you can decide beforehand what size will look best and make this the limit when choosing. This kind of planning will enable you to know at once that the tempting china cabinet or the three-seater settee will ruin your room.

The ambitious can go one better by planning the elevations of the room in the same way—except that this time the plan will represent a wall as seen straight on and the cardboard shapes will stand for the pieces of furniture seen in the same way. This type of planning is useful because unduly high pieces or lack of balance between them can produce a sensation of overcrowding, even with plenty of floor space.

If you have to make do with a couple of rooms in someone else's house, turn them into the equivalent of three rooms by disguising the bedroom as a sitting room. A divan in one corner, used as a settee during the day, comfortable chairs, one or two of the dual-purpose pieces—such as a chest of drawers with a writing table and dressing mirror all concealed in the top will do the trick.

ESSENTIAL AND OPTIONAL FURNITURE

All furniture can be divided into two kinds—essential pieces, such as beds, chairs, tables, and those which are desirable because of one's mode of life. This is more important than it might seem. Few clutter their sitting room with a harp that no one can play, but a surprising number buy a bureau that will only be used for the odd letter that could just as well be written on the dining room table. To forget the bed is unthinkable, but it's not unusual for those who play cards almost every evening, to have to move the whole room round each time when a conveniently placed table would save the trouble.

On the other hand a bureau or other writing desk is essential if the husband has to do part of his work at home and a special card table unwarranted if cards are normally played only on Boxing Day.

BUILT-IN PIECES

Decide at the outset what pieces you want built-in. Why pay for the top, back and sides of a wardrobe if by using an existing alcove you need only pay for the front? A good general rule is built-in storage furniture but movable seating units. An exception to this rule is the tiny dining room where space can be gained by putting the table in a corner with built-in seats along two sides. Make them dual-purpose pieces by having lift-up box seats, but see that the fronts

slope slightly inwards towards the bottom, otherwise they'll be kicked and damaged.

Normally, built-in pieces are best painted. They then allow greater scope for changing the scheme later, and if matched to the walls they merge into the background; one of the main reasons for having built-in pieces at all.

If you're renting and not buying a house, it's as well to come to a written agreement with the landlord about what you make take away, what may be fixed to walls and so on. (See also *FIXTURES*, p. 31) Many pieces can be fitted so that they do not damage walls at all and most pieces are fairly easily adapted if you move.

Alcoves provide obvious opportunities for building in, but a built-in effect is possible in a perfectly square room with a minimum of fixed pieces. In a small bedroom, for example, pieces may be arranged along one wall and the odd space filled in with a simple built-in fitment. If you plan to do this, buy either modern unit furniture or a suite with simple lines. The bow-fronted, scroll-topped wardrobe and tallboy would be quite wrong for this type of arrangement. All the same, built-in pieces need not be confined to the modern flat. Built-in display cupboards are a feature of many a Georgian room and in the more formal setting they can provide an essential link between pieces of different periods.

When it comes to choosing 'loose' furniture, decide at once whether matching 'suites' justify themselves or whether you won't achieve more individuality and comfort by choosing only those pieces you really need. By planning on paper first you'll avoid the pitfall of buying a standard bedroom suite if the only place the wardrobe can go is in front of the built-in cupboard. You should also consider whether two chairs of different sizes or shapes might not be more useful than the two matching ones of a three-piece suite.

BRITISH STANDARDS SPECIFICATIONS

Today, a British Standards scheme for furniture provides even the inexperienced shopper with protection against unscrupulous manufacturers. You will find many pieces marked with a trade mark rather like a small kite formed from the letters BSI, and a label guaranteeing that the piece conforms to British Standard specifications. Pieces marked in this way are made in accordance with minimum standards which ensure that timber is properly seasoned and that construction is sound.

More than this, however, such furniture has been subjected to scientifically devised 'performance tests' which, in effect, reproduce in a few minutes all the strains and stresses imposed by years of normal use. Before being passed, dining chairs are rocked back and

forth on their rear legs and heavy weights are dropped on the seats and at other vital points. Drawers and shelves are loaded with weights equivalent to those of the goods usually stored in them and storage pieces are tested to make sure they will not overbalance when opened.

Insist on seeing the B.S.I. mark on your furniture; if it is found unsatisfactory the British Standard Institute can prosecute the manufacturer. A maker who does not mark his goods may well have something to hide.

HOW TO CHOOSE FOR SERVICE

When you come to plan financial resources, differentiate between true and false economies. (See *HOW TO ECONOMISE*, p. 56)

BEDDING

Buy the very best bedding and upholstery you can afford, since it is largely upon these that the comfort of your home depends. Incidentally, there is more scope for going wrong here than anywhere else since so much must remain hidden from the eye.

Mattresses should be interior sprung if possible, preferably with pocketed springs, or filled with foam rubber. Failing this, a hair mattress is best. Flock is the least satisfactory of fillings. To test a mattress, press with the hand. When you remove the hand the impression should disappear at once, the mattress springing back into shape of its own accord. The nearer to this ideal, the better the mattress. But no mattress should be so soft that when depressed top and bottom meet. Reject spring mattresses in which you can hear the springs at work. The good mattress has ventilators—small gauze-covered discs at intervals round the sides.

Incidentally, if possible avoid economising in blankets. They are an important factor in healthy sleep. Coarse, heavy blankets, like tight gloves, prevent the air circulation which is a better guarantee of warmth than mere weight. Softness and light weight are the qualities to look for; cellular weaves are good for this reason.

UPHOLSTERED FURNITURE

Upholstered pieces are not always what they seem and unfortunately price is not necessarily a sound guide since often the best 'buy' is least expensive. For example, in many ways the best proposition is either 'show-wood' upholstery, in which the arms are wooden, (Fig. 5) or the less bulky type of 'stuff-over' (fully upholstered) pieces, because there are fewer hidden parts and consequently less opportunity for scamped workmanship. All the cost of production goes into the parts that really matter.

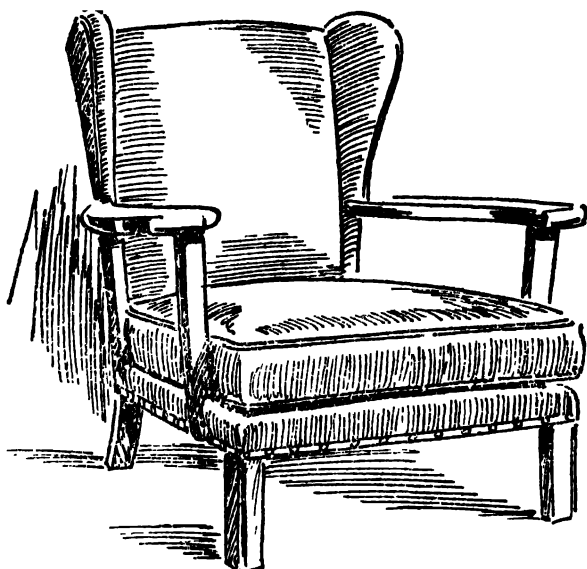


Fig. 5. 'Show-wood' upholstery is often the best proposition

The bulky, heavy, sprung-armed suite (Fig. 6) *may* be both comfortable and well-made, but these factors have no connection with either comfort or soundness. In concentrating on inessentials that

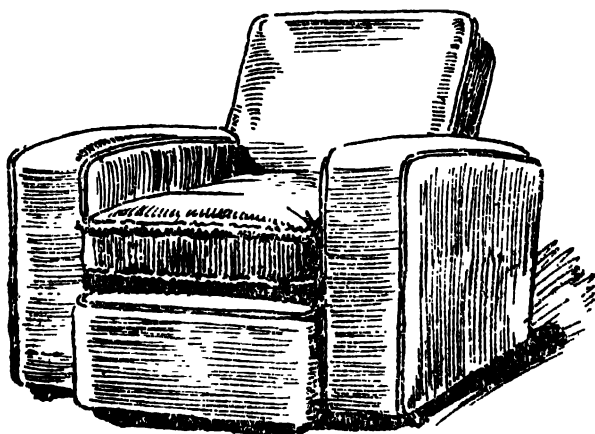


Fig. 6. The bulky sprung-armed type of 'stuff-over' upholstery

contribute nothing but an expensive look, the danger is that the essentials will be scamped. This is particularly true with the less expensive models.

Springs and stuffing are the most important factors in upholstery. A good spring is the tension type, rather like an expanding curtain wire to look at. These scarcely ever break, but should one do so it can be easily replaced without the major reconstruction usually involved in re-springing. This kind of spring was once almost entirely confined to 'show-wood' furniture but is now available in fully upholstered pieces. There is nothing odd about this type of upholstery—in appearance it is indistinguishable from the more usual kind. Of stuffing materials, foam rubber (on the market under various patent names) is excellent. So is curled hair (look for the tag 'Curled Hair is used in this piece') for it is clean and resilient.

A covering material containing wool is best, but if you're planning loose slip covers, economise by choosing a cheaper grade of cotton tapestry.

Correct sitting posture has been the subject of considerable joint research by doctors, architects, and designers in recent years, and it has been found that if the body is to be fully rested and relaxed when seated, the thighs should be either level or tilted slightly upwards towards the knees. They should never, as in some chairs on the market, slope backwards. The perfect shaped seat for an upright chair is either the Windsor—evolved quite simply, so legend has it, by someone sitting in a piece of wet clay and shaping a seat to match the result—or the type found on old rush-seated chairs. The ideal is, in fact, the exact opposite of the average dining chair with its slightly convex seat rather like a penny bun.

KITCHEN FURNITURE

Choose storage units of British Standard Institution sizes so that units added from time to time will fit neatly together even if of different makes. The sizes are 30in. high, 21in. deep and 21in. or 42in. long. Kitchen cabinets with upper and lower portions joined together are generally a mistake. Separate sections allow more flexibility of arrangement and enable the entire top of the lower portion to be used as a working surface. In the long run, timber kitchen units may prove more satisfactory than metal ones. The toughest non-scratch metal units will chip in time and cannot be easily repainted. (See also KITCHEN EQUIPMENT, p. 77)

HOW TO ECONOMISE

Reduce the number of pieces of furniture. This can be done with-

out sacrificing either comfort or elegance. For instance, a shelf left empty in a set of bookshelves by a fireplace will take cups or oddments and so eliminate an occasional table. Or a low cupboard across a living room alcove may do temporary duty as a sideboard, especially if the top is wide enough for use as a serving table.

Supplement with secondhand pieces. The best sources are the small 'back street' shop, the auction room or the country house sale, but care and discrimination are necessary. Always set out with a clear picture of what you want and an accurate idea of what it would cost new. At every sale are to be seen buyers so smitten with 'sale-room fever' that they cheerfully pay half as much again as an article would cost in the shops. Never buy at an auction unless you have first examined the goods at close quarters. Secondhand bedding is not recommended. Insist that pieces are lifted out for you to see. The small secondhand shop or sale-room is often dimly lit: go armed with a torch.

FAULTS TO LOOK FOR IN SECONDHAND FURNITURE

THERE are some 'bargains' that would be dear at any price. It is as well always to add mentally the probable cost of repairs to the original price.

WOODWORM

Examine all pieces carefully for signs of woodworm. The undersides of chair edges are often attacked, so too are feet. A few holes need not deter you since various proprietary insecticides will deal with them, but although the worst infested piece *can* be treated, for ordinary purposes it's likely to be more bother than it's worth. (See FURNITURE REPAIRS, p. 135)

SAGGING SPRINGS

Sagging springs in chairs and settees may be worth repairing, but avoid the V-shaped dent in the front that means a broken front frame, or bad cases where the stuffing, as well as the springs, sags below the chair.

SPLITS

A clean split in a leg or chair rail is probably less serious than it looks and could either be repaired or completely replaced at little cost. Large surfaces like table tops, or carcass sections, sides, backs, drawer-fronts, would be difficult or impossibly expensive to repair.

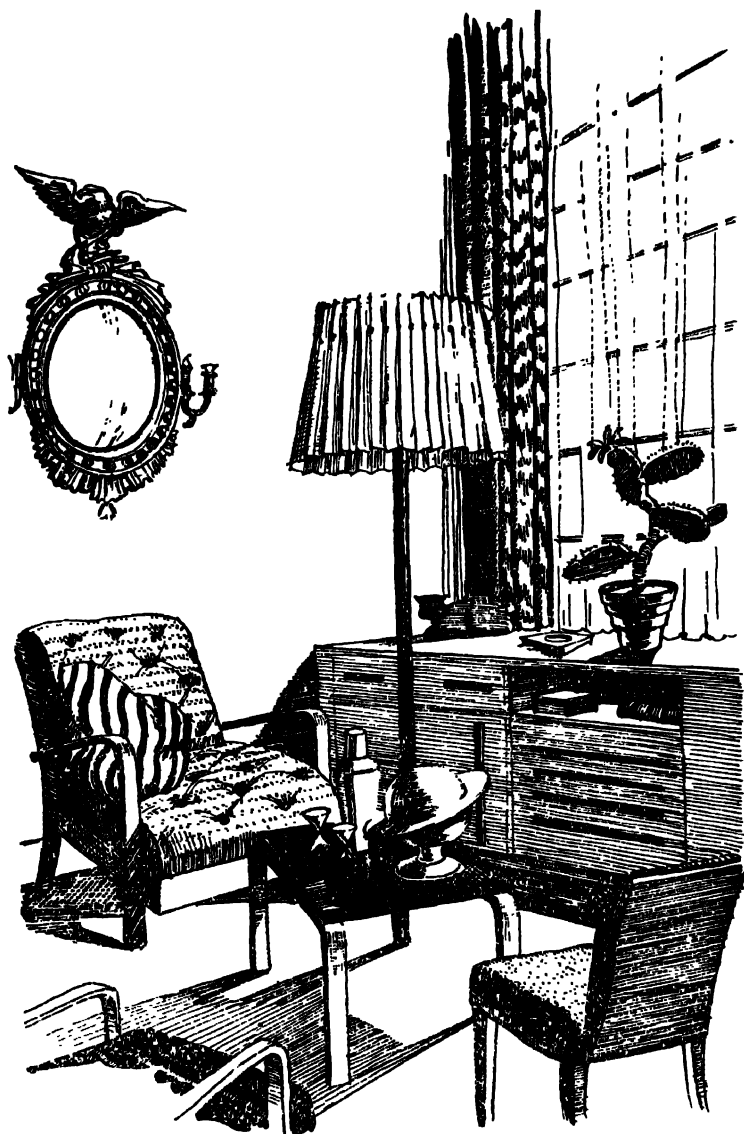


Fig. 7. A flamboyant gilt mirror can soften an otherwise severe contemporary furnishing scheme

HOW TO BLEND OLD AND NEW IN ONE FURNISHING SCHEME

WHEREVER possible, pieces should have something in common. It may be a decorative motif like a reeded moulding or ball-and-claw foot. Or it may be the surface of the wood: 'natural' or highly polished. Styles based on straight lines rarely mix well with those based on curves.

Timbers may be successfully mixed, but fine-grained, sophisticated mahogany, walnut, satinwood, sycamore, or elm don't blend well with coarser, simpler oak and chestnut.

Don't mix pieces of different scales. The over-size period bureau bookcase, for example, will never live happily with small contemporary pieces scaled to modern rooms. On the other hand, the Queen Anne lowboy may give distinction to an otherwise modern room. Often enough, too, painted furniture or built-in pieces will provide a smooth link between pieces or different styles.

The authentic period room, is, apart from its expense, entirely unsuitable for the less formal life of today and is usually seen only in the museum. The main function of antiques is to supplement the contemporary scheme. The well-chosen antique may become a focal point round which the rest of the scheme is built, or provide a legitimate splash of ornament, which in bulk would be overwhelming. A flamboyant gilt mirror can soften an otherwise 'severe' contemporary setting (Fig. 7) or an ornate lacquer mother-of-pearl chair give character to a simple hall. The general rule is that for use in this way pieces should be small rather than big and should serve some useful purpose.

Despite the rapidly decreasing number of stately homes and the conversions that often mean hacking a bathroom or kitchenette out of what was once a Georgian salon, there will always remain some settings which seem to demand a more formal treatment or where modern pieces would strike a discordant note. It is here that either reproductions or genuine period pieces may be required.

CHARACTERISTICS OF THE VARIOUS PERIODS

EACH period has its typical pieces, its own favourite timbers, its characteristic decorative motifs used by most makers of the time. Each has its own suitable background and use. Whether you're buying reproductions or originals, the ability to recognize these characteristics and to distinguish one style from another will save probable heart-burning later.

Much of the furniture dubbed 'reproduction' is no such thing. Furnishers' Jacobean, for example, is simply a furniture manufacturer's idea of what a Jacobean cabinet maker would have produced had he made it at all. In fact, the 'Jacobean' bedroom suite, book-case, sideboard, bureau, are all absurdities since none of them was invented until considerably later.

These are the main period styles likely to be encountered:

JACOBEOAN, 1603-1688

Oak was practically the only timber used. Most furniture was of squat rather than tall proportions to suit the low-ceilinged rooms of the time. Tables are rectangular, with bulbous legs connected by sturdy stretchers usually at ground level. Chair seats are rather high from the ground because of the universal use of footstools. Chair backs rise straight from the plain wooden seat with little or no gap between. The nearest approach to a sideboard was the court cupboard, a two-tiered cupboard with the upper tier set slightly back from the lower, with a canopy supported by bulbous uprights. In the Early Jacobean period carving was the favourite decoration. Practically all flat surfaces were carved. In the Middle Jacobean or Cromwellian period the Puritans eliminated practically all decoration, but the same shapes were retained. Chair seats, where upholstered at all, are often in leather fixed with brass-headed studs. Restoration or Late Jacobean furniture is the exact reverse. Every possible surface is carved, upholstery is luxurious, covered in petit point or tapestry, often with a heavy fringe round the seat and along the bottom of the back, and the early Jacobean loose squab cushion has gone. The 'barley-sugar' twist, now often just called 'Jacobean', was typical of the Restoration, so was a carved crown decoration, symbol of the return of the monarchy. Gate-leg tables belong to this period. After the Restoration, walnut replaced oak as the most popular furniture wood.

WHERE TO USE JACOBEOAN FURNITURE

Early Jacobean, one of the least formal of period styles, is suitable for the low-beamed rooms of the country cottage. Reproductions are often reduced in scale to suit present-day rooms. Oak needs bright colours and gay patterns if it is not to look sombre. Use printed linens with modernized versions of traditional themes. Avoid orange and rust tones (Fig. 8).

WILLIAM AND MARY, 1689-1702

Mainly walnut. Inlaid decoration replaces carving to a great extent and the most typical motif is an inverted bell at the top of

chair or table legs. Chairs have high narrow backs and the stretchers of both chairs and tables are often scroll-shaped.



Fig. 8. An early oak room (Jacobean)

QUEEN ANNE, 1702-1714

Walnut and mahogany. The cabriole leg with a 'claw-and-ball' foot, originally the claw of the Chinese dragon guarding the pearl of wisdom, is typical of Queen Anne pieces. No stretchers are used; the most common decoration, a carved cockle shell at the 'knee' of a cabriole leg. Practically all chair backs have a single splat, either urn or fiddle shape and are nearly always shaped to fit the body instead of being flat as in early chairs.

Two chairs are often joined together to form the forerunner of the modern settee. Typical Queen Anne chests have five drawers and are just high enough to use as a dressing table—their original use—or are two-tiered, the upper tier being slightly smaller than the lower. This is the tallboy.

Because they are essentially useful and are not over-ornate, Queen Anne pieces are a good choice to mix with almost any other period except Jacobean. A Queen Anne tallboy can be used successfully with modern furniture in almost any room in the house. Greens, blue-greens and crimson are good colours with walnut. It is nearly always a mistake today to use fabrics that are an exact reproduction of those of the period; simplified versions are usually better. A fabric with the cockleshell design would be a good choice with Queen Anne.

English furniture design reached its zenith during the Georgian period, which is considered as lasting from the accession of George I (1714) until the beginning of the nineteenth century when fresh fashions came in with the appointment, because of George III's failing health, of the Prince of Wales as Prince Regent. During this fruitful Georgian period, several superb designers and craftsmen created characteristic furniture styles. Of these the earliest, and perhaps the greatest, was Thomas Chippendale.

CHIPPENDALE

Wood: mahogany; decoration mostly carved, never inlaid or applied. Chair seats occasionally bow fronted; coloured leather upholstery typical. (Fig. 9). There is no such thing as a Chippendale sideboard. Chippendale chairs can be distinguished from those of Hepplewhite or Sheraton, the other two great Georgian cabinet makers, because the backs are always joined directly to the seat. Sheraton and Hepplewhite backs never reach the seat but are supported on a cross-rail an inch or two above it.

Chippendale's most famous chair backs are the ribband, a complicated design of entwined ribbons, and the ladder back. Again there are chair-backed settees to match. 'Piecrust' tables and tables with fretwork are often Chippendale in feeling, and the backless window seat with arms curving over at the end is another typical

Part 1—Before Moving In

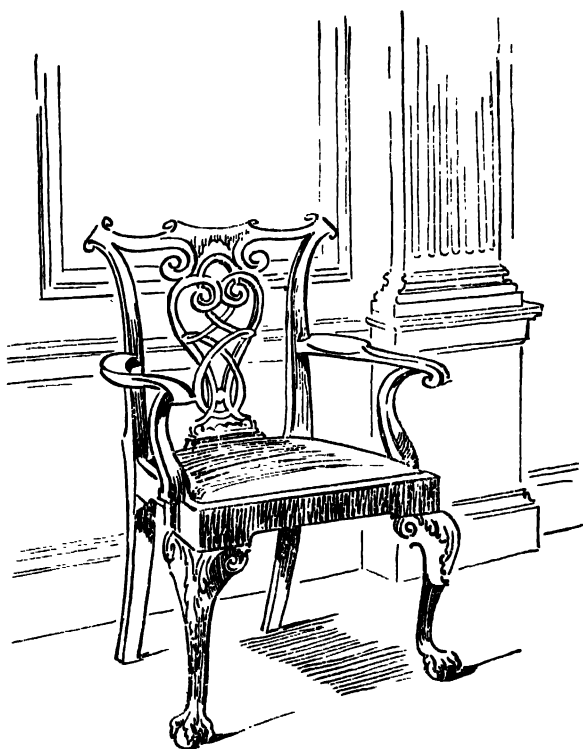


Fig. 9. Chippendale chair with typical carved decoration. This is the famous 'ribbon back' type.

piece. Dual-purpose bureau-dressing tables often have a top drawer fitted for toilet accessories and a pull-out baize-topped slide to cover this for writing. Chippendale 'breakfront' bookcases have glazed doors and a centre section slightly deeper than those at the side.

Chippendale is most suitable for the dining room, where its rather heavy, pompous style strikes the right note of formality. It is at its best in a room with high ceilings and fine proportions. Sage green, 'cool' shades of grey, rich blues are good with mahogany.

HEPPLEWHITE

A style of the late Georgian period. Chair backs are frequently shield shaped or have the well-known interlacing hearts pattern. They are mostly open and rarely upholstered. Prince of Wales

feathers are often used as a decoration. Legs are always slender and often fluted. Sideboards are bow or serpentine fronted, have six square legs with spade feet, and the corners are concave (Fig. 10) which makes them easily distinguishable from the similar Sheraton sideboard, which has convex corners. Mahogany is the most usual wood, though the yellowy satinwood made its bow in English furniture about this time. The long dining table with semi-circular ends and twin tripod supports is usually ranked as 'Hepplewhite'.

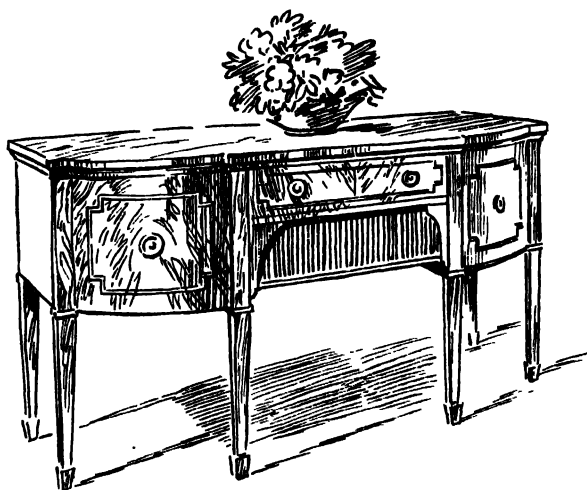


Fig. 10. The corners of a Hepplewhite sideboard are concave

ADAM

One of the most formal styles, and unmistakable. Decorations are entirely classical; Grecian urns linked by stylized swags and wreaths, plain shields and oval medallions, animal's heads, honeysuckle, human masks, and birds are all used. Legs are square or tapered. Raised, painted motifs, or Wedgwood plaques with raised designs, are characteristic. Long, and usually narrow, tables or semi-circular 'console' tables have decorated top rails like classical friezes.

The Brothers Adam were primarily architects and only designed (but never made) furniture to suit their rooms, which had similar friezes and carved panelling. A difficult style to use successfully, divorced from its own setting. At best with cool schemes like sage-green and white. Only fabrics with classical designs, either Adam or simplified modern versions, can be used. Floral patterns are quite unsuitable. (Fig. 11.)



Fig. 11. A corner of an Adam room

SHERATON

More graceful and delicate in appearance than Chippendale, its great strength belies its appearance. It is not unlike Hepplewhite, but instead of chair backs being nearly always curved, Sheraton chairs have a rectangular outline, often with delicate open work, lyre or urn shaped, or simply an arrangement of graceful uprights linked by criss-cross tracery. Sheraton sideboards have six round legs almost always reeded, another distinguishing feature since Hepplewhite legs are square. Tables have slender tapered legs like the



Fig. 12. The delicacy of Sheraton pieces makes them good for a sitting-room

chairs and have no stretchers. Inlay is the characteristic decoration, but carving and painting are sometimes found.

Striped fabrics are specially good with Sheraton, and delicate formal colours like yellow, mauve, rose, grey are excellent. The delicacy and femininity of Sheraton pieces make them suitable for a sitting room, and they mix well with most other styles. (Fig. 12.)



Fig. 13. Ormolu and other metal decoration are typical of Regency and Empire furniture

REGENCY AND EMPIRE, 1810-1830

Regency, the style that merged with and followed Georgian in England, and Empire, the style that followed the Revolution in France, are very similar. Ormolu and other metal decoration and

mountings are typical features. Feet of Regency tables are often metal mounted, while Empire desks and side tables have ormolu galleries or backs. Metal decorations are used too on drawer fronts.

Sphinxes and other winged animals are typical motifs in carving or metal work. Although similar to late Georgian in basic shapes, Regency is more ornate. (Fig. 13, p. 67). Regency chairs, and the smaller tables, are ideal for almost any type of house and many mix well with modern pieces.

Correct fabrics are luxurious damasks and brocades in floral or striped designs, or velvets. Heavily draped pelmets with swags and tails were typical of the period, but it is sufficient today to suggest the right atmosphere by simplified versions and by using graceful valances and frills. Bedspreads with valances and frilled kidney-shaped dressing tables, for example, strike the right note.

Choosing Furnishing Fabrics

A certain extravagance on soft furnishings is justified, because it is largely on fabrics that we depend for colour and graciousness. Indeed, the contemporary room, sparsely furnished by some standards, relies to a very great extent on fabrics for its appeal.

Good patterns and some of the most useful furnishing colours, including mushroom, mulberry, greeny-blues, lemon, and the richer crimsons, are frequently found in dearer fabrics and need more diligently seeking out in the less expensive ranges. Multi-coloured designs, too, are more costly to produce and therefore can only be sold cheaply if something else suffers, probably the quality of the colours themselves. In cheaper fabrics the two—or at most three—colour pattern is likely to be more successful.

SUITABILITY TO PURPOSES

TEXTURE

Some fabrics are suitable only for covers, others only for curtains, and some for both. For upholstery, choose a closely woven fabric such as moquette, and avoid 'knoppy' weaves which tend to pull and catch in use. For loose covers, heavy and closely woven linen is ideal. Some firm cotton tapestries are suitable, too.

For curtains a softer fabric is needed to drape well. Linen should be softer and more openly woven than for covers. There are, however, many border-line cases where linen is sufficiently heavy to make good covers and yet will also drape well enough for curtains. Closely woven tweeds are ideal both for heavy curtains and upholstery, but are still expensive.

The smaller the window the lighter weight the curtains can be, since the heaviest materials will not drape well in short lengths and the light ones look flimsy in long lengths.

COLOUR

When choosing curtains, see all fabrics draped as well as flat. Patterns sometimes appear quite different and colours change drastically owing to the different angles from which the light is reflected. Try to see all fabrics in both daylight and artificial light, but when testing for colour, remember that curtain fabrics will hang *against* the light which normally has the effect of reducing the intensity of the colours. Also, at the time when most of the colour and pattern shows, when the curtains are drawn, they will be seen in artificial light. The effect of light on colour varies tremendously with the type and intensity of the light itself, and with the dyestuffs used, but normally blues and greens are most affected.

A yellow that in daylight seems a little crude will soften considerably in artificial light. Black and dark blues look identical in artificial light. Browns and rusts change least of all, but some of the richest reds look almost terra cotta by artificial light. Look at fabrics from five or six feet away as well as close to; a small all-over design may disappear and look just uniformly drab.

PATTERN

Fabrics must be correctly scaled to the size of the room, windows, or the piece of furniture they are to cover. A pattern 2 in. high will look absurd at a window 30 in. high, and eye-catching designs that look perfect when draped over an 8 ft. high stand in a shop will look very different in a 15 ft. x 12 ft. sitting room.

The correct scaling of a pattern to an upholstered piece is just as important. In theory, the larger the piece the larger the pattern that can be used. In practice, for most ordinary rooms a repeat pattern of five inches or so is the maximum for upholstered pieces. Exception is where a panel, consisting of a central motif on a plain ground is used for chair seats, or a large pictorial design covers the whole of the back of a settee.

THE BALANCE BETWEEN PLAIN AND PATTERNED FABRICS

It is generally a mistake to repeat curtain fabrics elsewhere in the rooms and there must be a careful balance between patterned and plain fabrics. This usually means flouting the convention that all upholstered pieces should match. In general, patterns should be reserved for smaller pieces. A reasonable proportion is two plain to one patterned piece. Two or even more patterns can be used together if

carefully chosen. Sometimes the same pattern in another colour will give sufficient contrast. Or all the patterns may have a common factor. If one of the motifs of the curtain fabric is a star, a fabric with a design of stars alone would be good for covers, for example.

BLENDING TYPES OF FABRIC

Textures can conflict as much as colour and pattern. The sophistication of a silk damask suitable for a Georgian room or other formal setting will clash with the homeliness of folk-weave no matter how near a match the colour. Fine silk or silk-like fabrics with a sheen are generally unhappy with the more informal textures of linen, cotton, or wool. Compare the good combination of printed cotton curtains with a tufted candlewick bedspread and the unsuitable association of the same curtains with a satin-like rayon quilt. Pile fabrics like velvet, on the other hand, demand the contrast of sleek damask or brocade and mix badly with printed linen or cottons.

STYLE OF CURTAINS

IN hanging curtains and in choosing a pelmet much can be done to change or correct the proportions of both window and room. If the window is too small, as in some cottage rooms, it can be given importance by having floor-length curtains. In this case, too, curtains that extend rather more than usual at the side will increase the apparent breadth of the window. The long windows no longer scaled to the divided rooms sometimes found in converted houses can be brought to more manageable proportions by adding to the breadth in the same way, and by detracting from the height by an extra deep pelmet.

The average depth for pelmet or frill is one-sixth of the curtain drop—whether curtains are floor or sill length. But a smaller one—up to one-tenth of the curtain length—gives height to a low ceiling and a too lofty room will appear lower with a deeper pelmet—anything to onethird of the curtain length. (Fig. 14.)

In choosing curtain, consider what is outside as well as inside the room. If the window looks on to a garden with flowers even the finest floral fabric becomes a poor second. Don't distract attention from a window with a view by too obtrusive curtains. Use them rather as a neutral frame for the picture. But if the window looks on to a brick wall or someone else's washing, an eye-attracting design is wanted. In the worst cases the eye-sores can be masked by soft drapes of furnishing nylon. (TO MAKE AND HANG CURTAINS, Valances, pelmets, swag draperies, see SOFT FURNISHINGS, p. 153)

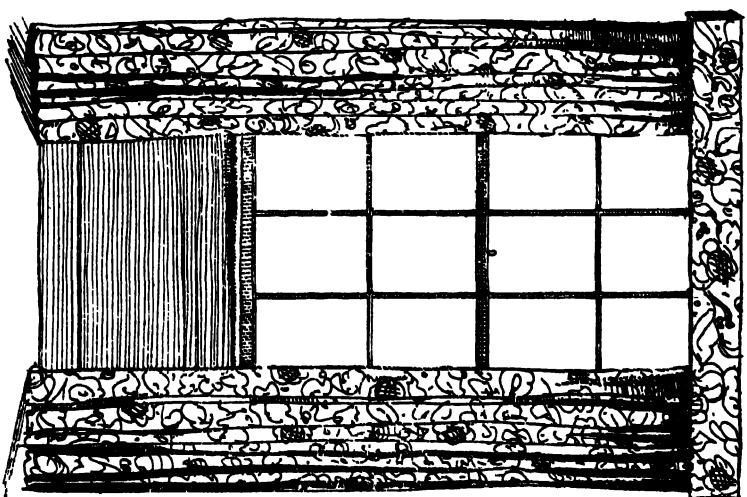
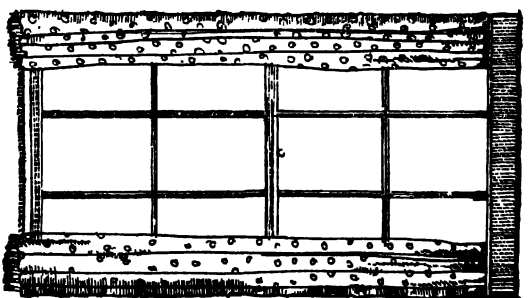
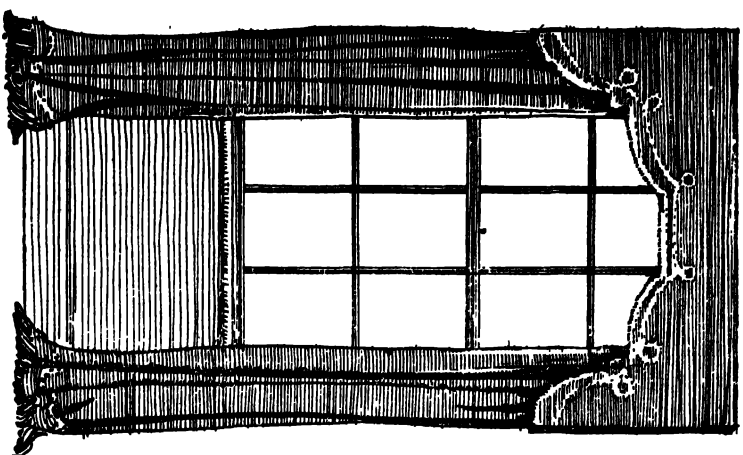


Fig. 14. Window treatments can alter the apparent proportions of both windows and rooms

Choosing Floor Coverings

WHERE floors are good, economise by using rugs instead of full-size carpets. As a foil for patterned rugs, paint floors instead of staining them, using such colours as dark green and maroon. Very thin coats of lacquer paint will do much to ensure a non-chip surface. (See FLOORS, p. 98)

Economise, too, on bedroom carpets, since they get comparatively little wear. Whatever the carpet, an underfelt is a necessity rather than a luxury. It adds to the life of the carpet by protecting the back from dust and grit and it increases the depth, and consequently the luxury, of the pile. Where carpets are to be laid on stone or concrete floors, a bitumenized felt below the underfelt will keep away damp. (See LAYING THE CARPET, p. 147)

SQUARE AND WALL-TO-WALL CARPETS

BOTH square and wall-to-wall carpets have their points. A fitted carpet increases the apparent size of the room, makes for comfort and warmth, and is a good choice in old rooms with bad floor-boards or for the draughty stone-floored cottage. Main disadvantages are that it is more or less permanent, it cannot be turned, and it is difficult to clean round the edges where fluff collects and may attract moths. D.D.T. powder or paradichlor benzene crystals sprinkled under the felt will discourage moths. (See MOTH PREVENTION, p. 201) A carpet square is less expensive than a fitted carpet, can be moved from one room to another, if necessary, and be turned frequently to prevent wear in one place. A compromise is to have the surround covered separately, either with self-coloured carpet or felt.

A self-coloured carpet is an excellent basis for almost any furnishing scheme, but is difficult to keep spick and span. It is also apt to 'shade', where trodden on. A mottled or flecked pattern gives the general impression of a self-colour without these disadvantages. Another alternative is the new 'sculptured' or 'embossed' carpet. The pattern is created by two heights or types of pile in the same colour, thus combining some of the best features of both plain and patterned carpets.

There are many different types of carpets available today, both hand and machine made, each with its own particular characteristics, merits, and most suitable uses.

HAND-KNOTTED CARPETS .

'INDIANS', the most generally used and inexpensive of the oriental hand-knotted carpets can be recognised by their comparatively long, loose pile of rather coarse wool. This makes them more suitable for

bedrooms than living rooms, where crumbs may lodge in the pile. There are plain pastel shades suitable for bedrooms which, unlike other plain carpets, do not show the marks. But colours of some Indian carpets, particularly the pastels, tend to fade badly. It might be wiser not to use them in a very sunny room.

'Persians', in which the colours are usually soft and designs delicate and finely drawn, are the closest woven carpets of all. Although Persian carpets are most suitable for period rooms, the smaller rugs can be used successfully in modern rooms, especially against a background of plain body carpet or polished parquet.

'Turkish' carpets are made with a different kind of knot which makes them coarser and less closely woven. They usually have more pronounced floral or geometrical designs in brighter colours. 'Turkey' red is typical. Turkey designs are good with early oak furniture, but mix badly with modern rooms or the more sophisticated periods.

'Chinese' carpets are finely woven and lustrous, with designs that look almost inlaid. The patterns are entirely conventionalized, many of them being symbolic. Colours are usually pale, yellow, the Imperial colour, being frequent.

The Chinese tends to be difficult to use correctly. For example, it is rarely suitable for the modern sitting room. For best effect, use it with period styles influenced by the Chinese, such as some Chippendale and some Louis Quinze.

MACHINE-MADE TYPES

'WILTONS' at their finest are probably the best machine-made carpets. The pile is of finely twisted *worsted* (best long-stapled wool) yarn which means closer tufts; and closeness of weave and not mere depth of pile is the hall mark of a good carpet. The comparatively short pile of a Wilton makes it a good choice for living rooms. Patterned with small oriental reproduction designs it goes well with Queen Anne or Georgian furniture. For Adam furniture, choose formal classic motifs.

The shorter-stapled woollen yarn is often used for less expensive Wiltons, particularly for the 27in. wide body carpet sold for making up. In these qualities there is little to distinguish it either in appearance or durability from a good Axminster.

'Axminsters' have a woollen pile, slightly rougher and less closely woven than Wiltons. The Axminster is particularly effective in the small contemporary all-over designs so suitable for the modern room. Chenille Axminsters—often used for seamless squares (in which the pile is woven separately and inserted into the backing a row at a time) are easily recognized by the well-defined rows—particularly noticeable in cheaper grades where they are widely spaced. Although

perfectly satisfactory where the rows come close together, there is a danger in the cheaper grades that a chair leg or high heel may pull a whole row away from the backing.

Spool 'Axminster', in which more colours can be used than in any other type of machine-made carpet, is particularly good for traditional chintz designs in naturalistic colours. Incidentally, these designs, popular in Australia and Canada, are difficult to use without giving an effect of 'busy-ness'.

'Haircord' is woven from cowhair, has a tightly looped, instead of cut, pile which makes it harder but less luxurious than other kinds. Despite its inexpensiveness, it is one of the hardest wearing carpets and one of the easiest to keep clean. It is essentially a floor covering for simple rooms or a hall; ideal with contemporary furniture or for the country cottage. In self colours it makes a good background for a few choicer patterned rugs.

HOW TO MEASURE FOR A CARPET

FOR a carpet square, deduct from three to four feet from the 'square' size of the room, i.e. the outside measurements, ignoring projections like fireplaces or recesses like window bays. This rough proportion can be adjusted according to the size of the room and according to the type of carpet. Seamless squares, for instance, are made in sizes increasing by 1ft. 6in. either way. Carpets sold by the yard for making up are usually 27in. wide and it is sensible to adjust the surround so that full widths can be used without waste.

Measuring for a close-fitted carpet is a little more trouble but it will save delay and expense if you can make a plan yourself. Draw a rough outline of the room, scale is unnecessary, showing all recesses and angles. Mark in the measurements along each piece of wall. Then the two diagonal measurements from corner to corner must be shown. Lastly, mark all other diagonals, that is to say, from the corners of the hearth or from each side of the door to the corners of the room. If there is a bay window, diagonal measurements for this should be shown as well, and from each corner to the opposite corner of the room. The more of these cross-dimensions you can give the more accurately can the carpet be made.

(HOW TO LAY A CARPET, also CARE AND REPAIR, see p. 147)

OTHER FLOOR COVERINGS

Felt is hard wearing only if closely felted. Colour is solid right through so that wear is less obvious. Cheaper than most carpets, it is really only suitable for fitting wall-to-wall where its disadvantage of stretching out of shape is unnoticed.

Coconut Fibre Matting is a good substitute for carpet in a simple dining room or cottage hall. Obtainable in self colours and patterns and in various widths, it needs fairly frequent lifting since dust sinks through. Sisal matting is more expensive but gives better service.

Linoleum is a composition containing linseed oil, cork and resin on a canvas backing. The best types have the pattern inlaid. Easy to keep clean and hygienic, linoleum is an excellent choice for kitchen, bathroom, or nursery. (TO LAY LINOLEUM, also GENERAL CARE, see p. 149)

Cork carpet is a more expensive alternative to linoleum for nurseries, bathrooms and sometimes for dining rooms (with rugs). Warm, non-slip, quiet to the tread, it is not affected by water or weak acid, but alkalis are harmful. Cork tiles, which are made quite differently, must be laid professionally. (FOR CARE OF CORK FLOORING, see p. 149)

What your Money Will Buy in Furnishings

The following suggested budgets are on the basis of cash available rather than on a given number of rooms, since it is from this basis that most home-makers must start.

Prices allowed are those at which a sound article can be found without undue searching, but individual pieces may be had from time to time for less. The absence of any built-in fittings is assumed and where they exist or can be substituted for conventional pieces costs can be reduced accordingly. A built-in bedroom cupboard allows £21 to be deducted from the basic budget.

Since home-making is the most individual thing in the world and some will prefer to splash on certain things and cut on others, no budget can be anything more than the roughest guide.

WITH £200 TO SPEND

<i>Living Room</i>	£	s.	d.
Carpet with underfelt: square 3yd. x 3yd. from 27in.			
body carpet	25	0	0
Table	12	0	0
Sideboard or other storage unit	22	0	0
4 dining chairs at £4 each	16	0	0
Two easy chairs (wooden arm type)	18	0	0
Built-in shelf fitment for lamp, wireless, books, etc.	2	0	0
Total	95	0	0

<i>Bedroom</i>	£	s.	d.
Carpet—Indian Numdah rug with underfelt	10	0	0
Wardrobe	27	0	0
Dressing table/chest	18	0	0
Double bedstead and spiral spring or divan	12	0	0
Spring interior mattress	8	10	0
4 feather pillows at 17s. 6d. each	3	10	0
Bedside table with cupboard below	5	0	0
	<hr/>		
Total	84	0	0

This leaves about £21 for essential bathroom and kitchen furnishings, and for curtains for all the rooms. A kitchen cabinet, made in upper and lower portions so that the lower top may be used as a 'working surface', costs about £16. Adapted second-hand furniture, as for example a marble-topped washstand (see *SIMPLE CARPENTRY*, p. 168), and home-made shelves will substitute at lower cost.

Equipment for cooking, cleaning, etc., has not been allowed for (see *KITCHEN EQUIPMENT*, p. 77) neither has linen, cutlery, china, glass lamps, and decorative accessories. Many of these may be given as presents and in any case expenditure on such items can vary enormously. For guidance the following may be taken as minimum requirements. *Household linens*: 2-3 pairs of sheets, 3 blankets, 2 under blankets, 6 pillow cases, down quilt or extra blanket. 2 tea or lunch cloths, 2 dinner cloths or 1 set of dinner mats, 6 glass cloths, 6 dusters, 4 bath towels, 6 smaller towels, bath mat. *Cutlery*: 6 table knives, 6 cheese knives, 6 table forks, 6 dessert forks, 6 teaspoons, 6 dessert spoons, 4 table spoons, bread knife, carvers. *China and Glass*: Tea set, 6 dinner plates, 6 soup bowls, 6 dessert plates, coffee pot, teapot, pint jug, 6 tumblers, glass jug.

Instead of the conventional six of everything the American housewife's system of buying sufficient for so many 'place settings' and adding to them a place at a time might be more widely adopted. But it presupposes some standardization of china, cutlery and glass.

With an extra £50 to spend you could make the existing rooms more comfortable, furnish a spare room (see below), or a separate dining room, or allot the money to kitchen equipment and labour-saving appliances (see page 82)

No allowance has been made for stairs, hall, or landings since these vary so much, but one of the subsidiary budgets could be adjusted to allow for this item. Prices of stair carpet range from about 20s. a yard, 22½ in. wide.

Extra £50 spent on furnishing a spare room:

	£	s.	d.
Double divan and mattress for spare room	20	0	0
Chest of drawers for spare room	16	0	0
Mirror for spare room	2	0	0
Bedside rug for spare room	5	0	0
Pillows for spare room	3	10	0
Bedside table for spare room.	3	0	0

Extra £50 spent on furnishing a separate dining room by adding:

	£	s.	d.
Two fully upholstered chairs instead of open arm type			
—difference in price	18	0	0
Settee (two-seater)	25	0	0
Coconut matting square for dining room	5	10	0

Kitchen Equipment and Planning

ESSENTIALS are (1) cooking stove, (2) sink and adequate hot water supply, (3) storage space for perishable and non-perishable food-stuffs and equipment, (4) reasonable 'working surface', (5) cooking utensils, (6) equipment for cleaning, laundry-work, etc.

CHOOSING A COOKER

An electric stove takes rather long to warm up, but it holds its heat. To make best use of it, you must plan meals carefully. Use saucepans with machined bottoms on flat hot-plates. Such pans are expensive initially, but they last a life-time. Ordinary pans can be used on radiant hot-plates, available with most new cookers, since they heat more quickly. Electricity is a completely clean fuel and discharges no waste products into the atmosphere.

Gas gives immediate heat and is easy to control. It throws off considerable heat which makes the kitchen warm. Modern stoves are easy to keep clean, 'foolproof' and very efficient.

Where there is no mains gas supply, a small gas stove run off a portable gas cylinder is a real convenience, though this 'bottled' gas is more expensive than the mains supply.

An *oil-cooker* (mainly used in rural districts) is economical to run, and the modern types are well designed and efficient. With the most usual circular-wick burner, wicks do need frequent attention and daily cleaning. Another kind (less easily adjustable) but giving a

clean, hot flame, has an asbestos collar in place of a wick. Wickless pressure burners, which also give a clear, hot flame and are very economical in oil, need special care in use. (See also OIL-BURNING APPLIANCES, p. 131.)

Solid Fuel is the dirtiest, though modern equipment and smokeless fuels reduce this disability. If much cooking has to be done over long periods a solid fuel range is the cheapest to run. (See also SOLID FUEL STOVES, p. 120)

Size of Stove

A small gas or electric table cooker, with one boiling source, a grill, and a small oven is excellent for a bachelor household. To cook full meals on it for more than one or two people would need more than average ingenuity about meal-planning. Such stoves cost from £10 upwards. 'Family' size gas or electric stoves, with three or four boiling sources, a grill, and an oven, cost, according to size of oven and refinement, from £22 to £55. The local showrooms of the Gas and Electricity Boards will give helpful advice. Any type of stove can be bought on hire purchase, and some Authorities offer older-type stoves for hire.

Solid fuel ranges vary enormously, from 'combination' types suitable for the kitchen living room, to free-standing, heat-storage models. (See also SOLID FUEL STOVES, p. 120) Cost ranges from £25 to over £100. Most solid fuel stoves heat the hot water and provide background space heating as well.

HOT WATER SUPPLY.

IN a rented house, some apparatus for heating water is usually provided by the landlord. The following notes are designed for those planning to install a hot water system. (See also THE HOT WATER SYSTEM, p. 116)

<i>Type of Water Heater</i>	<i>Advantages</i>	<i>Remarks</i>
Solid fuel combination water heater, cooking range, space-heating grate; back-to-back type; range on one side of wall, living room grate on other. Boiler over may supply hot air ducts to bedrooms, warmth to airing cupboard.	Gives background warmth in one or more rooms as well as heating the living room and doing part, at least, of the cooking. Comparatively inexpensive to run.	Can be installed only in house that is being built. Warm dry atmosphere not universally liked. May require supplementary heater for hot water.

<i>Type of Water Heater</i>	<i>Advantages</i>	<i>Remarks</i>
Solid fuel kitchen range with boiler.	Economical, if of modern type, as it is also used for cooking. Will service airing cupboard.	Unless of the heat-storage variety, may be too hot in summer.
Solid fuel living room fireplace with back boiler.	Economical, if of modern type, as it is also used for room heating.	Necessitates fire at all times, a disadvantage in summer.
Independent boiler (most usual types, solid fuel, though oil-fuel and gas models obtainable).	Constant supply of hot water. Will service airing cupboard and some types radiators also.	The most modern kinds very clean. Thermostatically controlled and automatically-fed models available in larger sizes.
Solid-fuel boiler (independent or combination type) With electric immersion heater fitted to the tank.	In winter, the solid fuel boiler is used, with the immersion heater to 'boost' the supply if necessary. In summer, the immersion heater alone supplies hot water for baths and domestic purposes.	High initial cost—but very convenient. Tank must be well lagged or consumption of current by immersion heater will prove costly.
Gas or electric heater, storage type, thermostatically controlled.	Constant hot water. Also excellent as supplementary system for summer when solid fuel boiler not lit attention required.	Can be left on constantly or (slightly more economical) switched on or lit for periodic use. Comparatively expensive to run.
Instantaneous gas heaters.	Immediate hot water whenever required. No attention necessary.	Labour-saving. Expensive to run. Require periodical servicing.

(All these solid fuel appliances need regular re-fuelling, cleaning and other attention, though contemporary models show a great improvement on older kinds.)

SINKS

MOST usual type is glazed earthenware, with wooden draining-boards. The latter should be grooved, slightly tilted and overlap the sink by one inch, not rest on the edge. Stainless metal sinks and draining-boards are more expensive, and rather more noisy, but are very hygienic. Being all in one piece they have no food-collecting crevices, and as the metal remains warm, grease can easily be wiped off without sticking. Porcelain enamel sinks have many of these advantages, and are less costly, but will not stand up to such heavy use. A double sink is the ideal. For the average woman, height to top rim of 35in., and depth of 7-8in. is about right. A plate rack, fixed over sink or draining-board, is a work-saver.

STORAGE SPACE

A COOL, closed, ventilated larder for storing perishables and dry goods is essential. Such a larder should be built in as a landlord's fixture. A refrigerator is desirable, but ideally should be an adjunct to the larder. A closed cupboard to hold baking equipment, preferably with sliding doors which do not get in the way, should be placed

near the working surface (which may be the counter top of the cupboard). Avoid stacking where possible, especially with china and glass, which should be stored close to the sink. Have a drawer or rack near the working surface to take cutlery and small tools, and small shelves, with hooks beneath, close to sink and cooker for the most-used articles. Stand saucepans upside down on a rack, or on slatted shelves close to sink or cooker. Brushes and brooms are best hung on a rack. If possible, have the rack in an enclosed cupboard which will take other house-cleaning equipment.

THE WORKING SURFACE

A comfortable height for counters or table, whatever is used, is most important. 36in. from the floor suits a woman of average height. If your working surface is a wooden table, a covering of washable American cloth, or a vitreous-enamelled or impervious composition top, such as laminated plastic, will save work. (See also KITCHEN FURNITURE, p. 56)

ESSENTIAL COOKING UTENSILS

FOUR people require little more than two, but it is wise to buy certain items, such as casseroles and stewpans, in larger sizes. At least one saucepan should be heavy-based for browning in fat. Pans with small side handles that can be used in the oven or on top of the stove are an economy. In the long run, good quality pays. Aluminium is the best all-round choice; medium heavy-weight for gas, oil or non-insulated solid fuel stoves, and special heavy pans with a machined base for use on an electric solid-type hotplate or with a heat-insulated solid fuel cooker. If you like enamel-ware, remember that the thin kind chips readily and burns easily.

BUYING GUIDE

FOR COOKING, LAUNDRY WORK AND HOUSE CLEANING EQUIPMENT COSTING

APPROXIMATELY £30

<i>Pots and Pans</i>	<i>Average Price</i>	£	s.	d.
Saucepans, 1 large	(8s. each)	15	0	
2 medium		16	0	
2 small		10	0	
Milk saucepan		3	6	
Frying pans, 1 flat, thick		13	0	
1 deep, with basket (optional) or second pan for fish		9	0	
Total		£3	6	6

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<i>Baking tins</i>	<i>Average price</i>	£	s.	d.
2 sandwich tins, about 9d. each		1	6	
1 pie plate, if oven glass, about 3s., if tin		1	0	
2 cake tins, different sizes		3	6	
set of pastry cutters (optional, as drinking glasses will do)		5	6	
1 Swiss roll tin (can be used as baking sheet)		2	6	
1 meat tin, if enamel 9s. 6d., if tin		4	6	
1 meat grid		1	6	
Total		£1	0	0

<i>Miscellaneous cooking equipment</i>	<i>Average price</i>	£	s.	d.
1 mixing bowl		4	6	
2 pudding basins, different sizes		2	0	
1 pie dish		2	6	
1 casserole (oven glass fireproof ware or heavy aluminium (dearer)		9	0	
1 jug		3	0	
lemon squeezer		1	0	
graduated measure and/or standard cup measures		6		
colander		5	0	
sieve (if fine, can also be used as flour sieve)		4	0	
graters		4	6	
whisk (rotary, 10s.) hand		2	0	
pastry board (unless working surface is suitable)		3	0	
rolling pin (or make do with a bottle)		12	6	
pastry brush		1	0	
flour bin, real one costs about 9s ; a biscuit tin would cost		6		
bread bin about 9s., but make ventilation hole in biscuit tin		2	0	
kettle		2	0	
tea pot		5	0	
coffee pot (percolator, 15s. 6d.)		3	6	
Total		5	0	
		£3	12	6

<i>Cutlery, etc.</i>	<i>Average price</i>	£	s.	d.
Sharp knives, 1 large		10	0	
1 small		3	0	
large two-tined fork		3	6	
large basting or dishing spoon		3	6	
measuring spoons		1	3	
2 wooden spoons		1	9	
vegetable peeler		1	6	
tin opener		1	6	
corkscrew		2	0	
scissors		10	0	
skewers		1	0	
oven cloth		4	0	
Total		£2	3	0

<i>House-cleaning equipment</i>	<i>Average price</i>	£	s.	d.
stiff broom		15	0	
soft brush		10	0	
bannister brush (one side stiff, one soft)		10	0	
mop		3	0	
dustpan		4	6	
carpet sweeper (not a basic necessity, but very useful) <i>about</i> 4		0	0	
grate brush		2	6	
rubber or plastic gloves		2	6	
6 dusters (non-fluffy—soft cotton rags will do)		9	0	
window leather (or squeegee, 3s. 6d.)		5	0	
impregnated duster for silver		1	6	
kneeling mat (or make a pad of hessian)		5	6	
galvanised bucket		5	0	
scrubbing brush		2	6	
floor cloth		2	0	
swab (or cellulose sponge, 2s. 6d.)		1	0	
Total		£7	19	

House-cleaning and washing-up materials

Soap, soda, soap powder, detergent, whitening paste, whitening powder, steel wool, turpentine substi- tute, borax, vinegar, floor polish, furniture cream, silver polish, brass polish, carbon tetrachloride, scouring powder	(say) Total	£1	0	0
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Part 1—Before Moving In

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<i>Shoe-cleaning</i>	<i>Average price</i>	£	s.	d.
2 black brushes			5	0
2 brown brushes			5	0
suede brush			1	0
creams, polishes and cleaners as required, say			4	0
	Total		15	0

<i>For washing-up and vegetable preparing</i>	<i>Average price</i>	£	s.	d.
bowl			4	6
mop			1	0
sink swab			1	0
saucepan brush			1	0
vegetable brush			3	0
soap dish			1	0
detergent			1	6
scouring powder			1	0
tea cloths (4 kitchen cloths, 2 glass cloths)			18	0
2 hand towels			10	0
covered rubbish pail			10	6
plate rack			1	9
	Total	£4	2	0

<i>For laundry work</i>	<i>Average price</i>	£	s.	d.
utensil for boiling (deep enamel basin, or galvanised bucket would do)			10	0
electric iron (heat-controlled)			2	2
ironing board			2	5
clothes horse (or airer, more expensive)			10	0
	Total	£5	7	0

DESIRABLE ADDITIONAL EQUIPMENT

For *cooking*: a greater assortment of saucepans, knives, serving spoons, baking tins, casseroles, sieves, etc., as required; a mincer (£1); a rotary whisk (10s.); scales (£2); preserving pan (30s.); sugar thermometer (8s.); pressure pan (£4); waterless cooker (£4) or 3-tier steamer (25s.); creamer and mixer (£14-£25); electric toaster (£2 2s.); waffle iron (£3 15). For *house-cleaning*: vacuum cleaner

(£12-£25). (This is frequently considered a necessity, and in many homes the first item to be bought after bare essentials.) Electric polisher, if there is a great extent of polished floor. *General Fixtures*: step-ladder (£2); vitreous-enamel top for wooden table (average size, £2 10s.); vegetable rack (£1); refrigerator (40-£95 according to capacity). For *laundry work*: wringer (£5); sleeve board £10s.); washing machine (£16-£90); drying cabinet (£20).

PLANNING THE LAYOUT

To be labour-saving, a kitchen must be arranged to save unnecessary movement, and equipment and utensils located where most easily reached. For example, near the sink have a shelf for soap, detergent, scourer, etc., and hooks for pot brush, vegetable knife and parer, and rail for tea towels. Place tea, coffee, condiments, and flour for sauce-making where they are easily reached from the stove; whisks, graters, pastry-making utensils, etc., near the working surface, and so on.

When buying, consider first how much use the item will be to you personally, remembering that nothing is labour-saving if it takes more time to assemble, clean, and put away than that taken to do the job by hand. Sometimes when a gadget purports to do half a dozen things and does them all indifferently, it would be better to buy two single-purpose tools. Choose the best quality you can afford. Let the design be simple with few angles or dirt-collecting corners. The piece should be suitable for its purpose, and, especially if it is expensive, be something for which you will have frequent use.

Budgeting and Keeping Accounts

HOW TO BUDGET

No two individuals, let alone two families, are likely to spend money in the same way, but from a broad guide, individual schemes may be worked out. To plan expenditure, consider: (1) Total income, (2) Size of family, (3) Ages of children, (4) Standard of living.

Whatever the income, whether it is large or small, fixed or fluctuating, the first calls on it are for shelter, food, fuel, and clothes. The smaller the income, the greater the proportion which must be spent on those items. For instance, supposing two neighbouring families consist each of two adults and two children. The income of family A is £500 a year and of family B, £800. The rent for both is £125. That is, B pays only 16 per cent of his income in rent, but A pays 25 per cent. Obviously the other items must be adjusted accordingly.

The percentages usually recommended for an average household

are: Shelter, 20 per cent; food, 30 per cent; household expenses (such as fuel, laundry, repairs and renewals, etc.,) 20 per cent.

With a very small income, the proportion spent on food will be increased considerably, and often today more than 20 per cent must be spent on shelter.

The remaining 30 per cent must cover clothes, amusements, education, cigarettes, holidays, 'personal items', savings, subscriptions, etc., and will vary even more than the other expenses.

HOUSEKEEPING EXPENSES

The housekeeping expenses include food, fuel, laundry, housecleaning materials and equipment, small repairs and renewals, household help. It is essential for husband and wife to fix definitely who is to pay such items as rent, telephone, etc., and to adjust the wife's allowance accordingly.

RECORDS

Any planned method of allocating income must entail keeping records of expenditure. Keep a detailed note of money spent each day and total up weekly under main headings. The weekly sums should be added up quarterly, when such items as electricity and gas will be brought in. If things go wrong—if the records are overlooked for a week or two—do not abandon the scheme altogether. Pay off outstanding debts and start afresh, and in time the 'blank periods' will become fewer and shorter.

For the husband to give the wife a sum for housekeeping, remains the safest way to prevent expenditure getting out of hand. The smaller the income, the more need for rigorous accounting.

LEGAL ASPECT

RECEIPTS for any substantial items should be carefully preserved for six years at least. In England and Wales, but not in Scotland, any action for recovering the money after this time is generally barred. If the receipt covers an article included in an insurance policy it is wise to keep it indefinitely.

If the husband gives the wife a sum for housekeeping, it remains his money and she is not legally entitled to keep any surplus. But a personal allowance, to cover housekeeping as well, is hers, and she may spend it how she pleases so long as the necessities of the household are brought.

CLEANERS

If articles are sent to be cleaned or repaired the cleaner, etc., is responsible for loss or damage which happens while the article is in

his possession. This is subject however to any conditions (often printed on the ticket or receipt) which are made part of the contract. The cleaner or repairer is entitled to retain the article until his bill is paid.

DOMESTIC SERVANTS, ETC.

A full time domestic servant is by custom entitled to one month's notice unless dismissed for misconduct or dishonesty. She is not entitled as of right to a 'character' or reference, but if one is given it must be fair and honest. An employer must pay his share of National Insurance contributions in respect of a domestic servant whom he employs for eight hours or more per week, and if he pays her at a rate exceeding £3 5s. per week or £13 10s. per month he must also deduct income tax under the P.A.Y.E. Scheme appropriate to her coding and pay it over to the local collector of taxes every month. If the employee has other employment the minimum figures are £1 per week and £4 per month. The inspector of taxes should always be consulted. (See also INSURANCE, p. 298)

Facilities from Local Authorities

OUT of the rates, Local Authorities provide many services, the more important for a householder being Health Services, Housing, Scavenging, Education (see EDUCATION, p. 268), Roads, and (usually) Water.

PUBLIC HEALTH

The Local Authority's duties entail (1) the seeking out and dealing with dangers to health arising out of bad sanitation, vermin, epidemics, public nuisances, and overcrowding; and (2) the provision of health visitors, district nurses, and (sometimes in conjunction with the Regional Hospital Authority) midwives; (see also PREPARING FOR A BABY'S COMING and WHEN BABY IS BORN, pp. 261, 264). Certain cases of an infectious nature must be notified to the Medical Officer of Health (see also INFECTIOUS DISEASES, p. 251). In many districts a Home Help Service is provided for nursing and expectant mothers and for invalids.

The Sanitary Inspector is responsible for the enforcement of regulations governing drainage, sanitation, and other conditions which affect the general public health. He will advise on problems of drainage, nuisance occasioned by occupiers of adjoining property by reason of blocked drains or other insanitary conditions. A tenant who is dissatisfied with the condition of the property which he is occupying has, therefore, statutory means provided for his aid. A formal

complaint to the Local Authority will result in a visit from the Sanitary Inspector to investigate. He has wide powers to enforce remedial treatment, and these may often prove far more stringent than at first anticipated. In particular, the owner of a house may be required to do such repairs as are required to put the premises into a habitable state.

SCAVENGING

It is the Local Authority's duty to collect household refuse; sometimes regulation dustbins are provided and charged for.

ROADS

The upkeep of public roads is also the responsibility of the appropriate Local Authority. It will usually be willing to take over a privately constructed road, e.g. on a private housing estate, provided that it has been made with a sound foundation and properly surfaced, either by the owners of houses on either side, or by the superior landlord.

Other auxiliary local services include the provision of allotment land, libraries, and the testing of gas and electric meters.

PART 2.—THE BUILDING ITSELF



Roofs

PITCHED ROOFS

REPAIRS and overhauls of pitched roofs are seldom within the scope of the amateur, but certain items of normal maintenance can be undertaken successfully by a man used to ladder work and with a 'good head for heights'. These are cleaning out gutters, stopping up gaps which allow the entry of birds to the roof space, clearing away birds' nests, and so on.

GUTTERS

These should be cleaned out regularly, otherwise they will become clogged with dead leaves and grit, causing them to overflow during heavy rain, with detriment to the walls below. The autumn is the best time to undertake this work. If it is left too late, a fall of snow may occur just when the gutters are nicely blocked up, and trouble will follow at the first sign of a thaw.

The most vulnerable points are, of course, adjoining the outlets from the gutter to the downpipes; some of the leaves may collect here and, falling down the pipe, eventually block it; the result is that the pipe may begin to leak at the first joint above the blockage; the water, 'backing up' and forcing its way out at the joint, will run down the face of the pipe and possibly soak the brickwork behind the pipe.

All dead leaves and rubbish should be cleared out and the gutters left clean. This can be done from a ladder; it is a tedious job but essential. When doing this work, do not overlook the small gutters behind chimney stacks. A blocked chimney gutter can be the cause of damp penetrating the chimney breast in the rooms immediately below. While up on the ladder, take a good look at the slates or tiles, to see whether any are loose or broken, and arrange to have them replaced as quickly as possible.

BIRDS IN ROOFS

Small birds, such as sparrows, can find their way into the roof space through very small gaps; these are often found at the eaves if

the rafter feet are open. The best way of spotting them is from *inside* the roof; daylight will be seen through them. When all holes are found, fill up solid with mortar.

SNOW PENETRATING ROOF

Dealing with snow which may be driven, by high winds, under the slates or tiles, is a job which must be tackled quickly, *before the thaw comes*, or there may be serious consequences, due to the melted snow penetrating the ceilings below. A plaster or plasterboard ceiling will not withstand water for very long. The only counter measure possible is to go up into the roof, sweep up the snow wherever it has collected, and carry it downstairs for disposal. Obviously this is best done while the snow is in a 'manageable' condition, i.e. not even *beginning* to thaw.

This trouble is most likely to occur in roofs which are neither boarded nor felted. In open roofs of this type, usually in old buildings, the torching under the slates or tiles may be defective, leaving an easy entry for the snow. The only course is to keep a watchful eye on the 'loft', and to deal with the trouble as soon as it arises.

FLAT ROOFS

Repairs to flat roofs are generally more within the scope of the amateur than in the case of pitched roofs. Most properties include flat-roofed sheds and out-houses which need periodical maintenance and care. The covering most commonly used for this type of building is a bituminous felt, either a single layer or 'built-up' in two or three layers.

Leakage may occur owing to shrinkage cracks, or owing to damage caused by foot traffic, for which bituminous felt is not generally suitable. Slight shrinkage leaks can be made good by the application of bituminous mastic. A number of proprietary mastic compounds are now available for repairing and renovating bituminous felt and corrugated iron roofs. These mastics contain asbestos, and adhere very well to all kinds of surface. They are fairly elastic, and are not affected by rain, sun or frost. They can also be used as an 'all-over' treatment to old or worn roofs.

Alternatively, a good bituminous paint is an excellent preservative for roofs of this type. Follow the makers' instructions for application carefully, clearing the surface of grit, etc., before applying the paint. In the case of rusted corrugated iron roofs, thorough preparation is essential. The surface should be vigorously cleaned with a stiff wire brush until the bare metal is exposed. Neglect of such preparation condemns any repainting to failure, as rust left on the surface will cause the paint to flake off.

Walls

REPOINTING BRICKWORK

THIS is the most common repair to the external face of brick walls. It can be undertaken by a handyman, provided that a reliable method is adopted. Careless or ignorant re-pointing is wasted effort, because the pointing mortar will, as likely as not, drop out, leaving the joints exposed to the weather.

The joints between bricks can be a source of damp penetration to the inner face of the wall, by capillary attraction through cracks and faulty places. It is well to remember that from the point of view of weather-resistance, if nothing more, a wall of good bricks is as strong as its joints, and no stronger.

THE RIGHT KIND OF MORTAR

The strength of the mortar used for pointing should be roughly equal to that of the brickwork. Too strong a cement mortar is inadvisable for repairs; it has been known to cause the surface of the bricks to break up. For ordinary repair work a lime-cement is recommended, because it is of medium strength, has good adhesive properties and is quite easily worked, but it is advisable to establish, if possible, the type of mortar used for the original jointing and use a similar mix. A suitable mix is 1 part lime putty, or hydrated lime, 2 parts Portland cement, and 9 parts sand. For domestic work, a good alternative is 1 part Portland cement to 4 parts sand. For soft or very old bricks, the mortar should be weaker.

METHOD

Rake out joints to a depth of at least $\frac{3}{4}$ inch. All the loose material should be brushed out very thoroughly with a wire or other stiff brush of a suitable shape. Wet the wall, splashing the water on from a bucket with a whitewash brush. In dry weather, repeat the process. The wetting of the brickwork is most important because if it is not done, the dry bricks will soak up the moisture from the new mortar too quickly for the mortar to set properly. The wall should not be soaking wet, but there must be more than a mere surface application. A wall exposed to full sunshine or a drying wind is a somewhat difficult proposition. There may be difficulty in obtaining the correct degree of wetness. In such cases, wait until the wall is in the shade, or until the wind has dropped.

The next step is the application of the new mortar with a small 'pointing trowel'. There are several types of pointing used by the

bricklayer, known respectively as 'weathered', 'struck', 'flush', 'hollow' and 'recessed'. (See Fig. 15.) (There are others which require the experience of a skilled craftsman.) When repointing small areas,

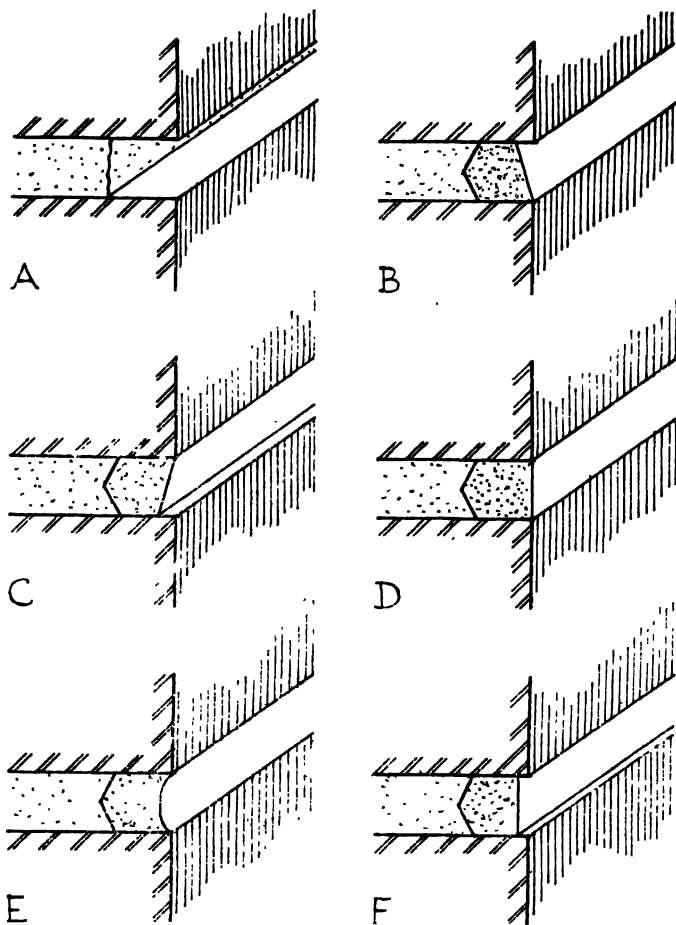


Fig. 15. Various methods of pointing brickwork: (A) joint racked out ready for re-pointing, (B) 'weathered', (C) 'struck', (D) 'flush', (E) 'hollow', (F) 'recessed'

the same type as that used for the surrounding brickwork should, of course, be adopted. Perhaps the simplest type for the amateur is the 'hollow' joint. The 'hollow' is made by drawing a rounded stick along the joint immediately after applying the mortar. This gives a hollow just big enough to provide an adequate weather check, and at the same time a most attractive appearance.

When undertaking repointing, do not overlook the joints between door and window frames and brickwork. In old property the bedding mortar has often deteriorated and the wood shrunk, leaving a vulnerable gap for the penetration of rainwater, and consequent rotting of the timber. One of the places where repointing is often necessary, but likely to be overlooked, is in chimney stacks above the roof. Deterioration of the joints in this position is revealed by patches of damp showing on the chimney breasts in rooms on upper floors. This is not a job for the amateur, entailing, as it does, the use of ladders and possibly scaffolding, but it is mentioned here to remind the house owner of a likely source of trouble.

HOW TO CLEAN PAINTED, DISTEMPERED AND PAPERED SURFACES

PAINTWORK should be scrubbed with hot water containing ordinary shredded soap (or soap flakes) in sufficient quantity to clean the work without damaging its gloss. Begin washing at the lowest part and continue upwards, completing about one square yard at a time and immediately rinsing down with clean cold water before proceeding with the section above. Meanwhile, the lower area must be kept wet (with clean water), whilst soap is being used upon the upper surface, otherwise, the finished work may be splashed and permanently marked.

Washable distempers are cleaned similarly, but size-bound distempers must be dry cleaned, using stiff dough or stale bread for the purpose. The latter method may be used upon wallpapers or, alternatively use a special proprietary cleaner. The cleaning of distempers and wallpapers is, however, always a doubtful proposition.

DISTEMPERING WALLS (see **DISTEMPERING**, p. 171).

REPAIRING DEFECTIVE PLASTER

DEFECTS may take the form of simple cracks; cracks with edges out of level; or patches of soft crumbling plaster caused by age or prolonged dampness. For plastering simple cracks treat as when preparing to distemper. (See **DISTEMPERING**, p. 171) When repairs of greater area and depth are necessary, treat on the following lines: (1) Remove all crumbling plaster and enlarge the patch until surrounding plaster is firm and hard. In most cases the underlying brickwork, or lathing, is bared and must be scraped clean. Prepare cracks out of level by cutting out a channel some two or three inches

in width and undercutting the edges (Fig. 16). (2) Thoroughly saturate damaged area by brushing with clean water; then partly fill with mortar consisting of sand and Keene's cement (equal parts) mixed with clean water. (3) After an interval of several hours, apply a second coat of mortar, leaving the surface as level as possible but slightly below the surrounding area. (4) On the following day apply a thin coat of Keene's cement and trowel to give a smooth surface.

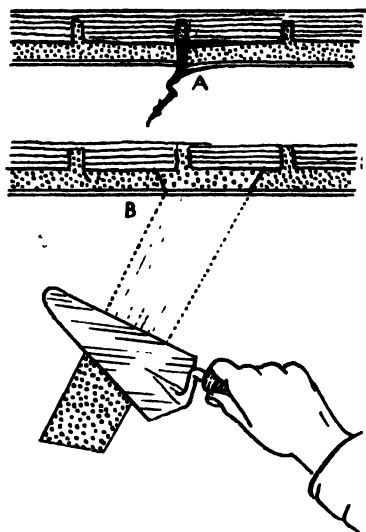


Fig. 16. Loose and badly-cracked plaster work is cut out (A) and repaired (B)

SUGGESTED COLOUR SCHEMES

WHEN choosing colours for walls and woodwork consider the size and proportion of a room; amount of daylight; aspect, i.e. whether sunny or not; purpose of room, and the presence of existing carpets, soft furnishings, etc.

As a general rule, wall colours should be pale, warm, and quiet in

effect, with woodwork providing sufficient contrast of tone and colour. Cool tints of blue, blue-green and grey are usually reserved for sunny rooms, whilst warm tints (containing yellow or red) are particularly successful in sunless positions. Bright, positive hues make rooms appear smaller but these colours may be used to good effect upon woodwork, providing that the total area is not too great.

The safest schemes are those in which one hue predominates throughout, i.e. pale and deep tones of one colour, or, alternatively, where several hues each contain some proportion of the predominant colour; e.g. cream and apple green (each containing yellow); biscuit and cinnamon; shell pink and warm silver grey; beige and golden brown; aquamarine and pearl grey; the last named in each pair being suggested for the woodwork. (See CEILINGS: EFFECTS OF COLOURS, p. 98)

'SOUNDING' LATH AND PLASTER WALLS

WHEN fixing to a lath and plaster wall the screws or nails should be driven into the studdings or noggings. The studdings are the

vertical timbers shown in Fig. 17, whilst the noggings are the horizontal pieces. When the wall is covered with plaster the position of the studding and nogging is found by *lightly* tapping the wall with a hammer face and listening to the sound. This will be 'solid' or hollow according to whether the hammer is being struck over solid timber or not.

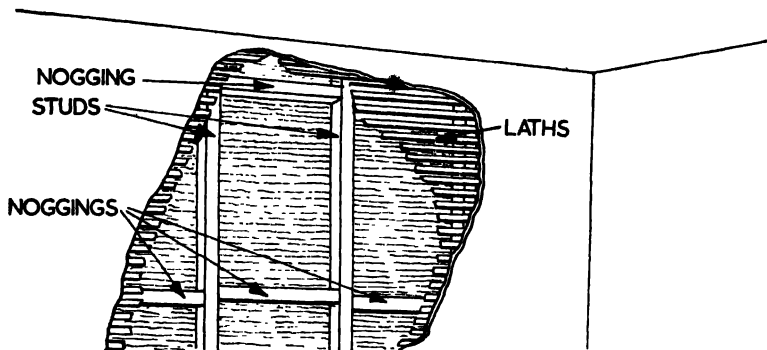


Fig. 17. Screws or nails should be driven into the 'studdings' or 'noggings'

PLUGGING WALLS

Wooden plugs may be inserted in brick or breeze walls to hold screws for fittings. When inserted in the mortar bond between brick courses they are shaped as in Fig. 18 A. For letting into sockets cut in the brick or breeze block they are square as at 'B'. In both cases the corners are shaved off as shown. This makes them twist slightly when driven in and thus hold more tightly. Cut the sockets first with a hammer and cold chisel, then cut the plug and drive home. Saw off the projecting end of the plug just before it is fully home so that it goes in flush. This type of plug has now largely been superseded by proprietary brands.

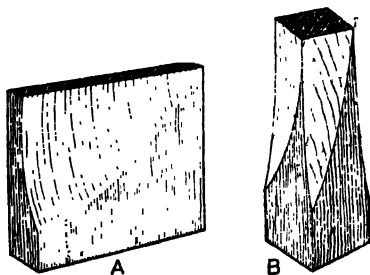


Fig. 18. Wooden plugs.

PROPRIETARY WALL PLUGS

A well-known type is the 'Rawlplug'. Holes are bored in the brick, tile, breeze, concrete, etc., and the plugs inserted. Ordinary

wood screws driven into the plug cause it to expand and grip the hole. Very considerable weights can be supported, and complete outfits comprising the Rawlplug boring tools and a supply of plugs with full working instructions are obtainable.

THE SPRING TOGGLE

This is a device, also made by the Rawlplug Company, for fixing to thin hardboard partitions or hollow tile walls, etc. It consists of a centre part, tapped and fitted with the fixing screw, with spring operated metal 'wings' attached (Fig. 19). When pushed through a hole of $\frac{1}{2}$ in. diameter in the partition, the wings automatically open and distribute the strain over a wide area. It is particularly suitable for fixing to plasterboard ceilings.

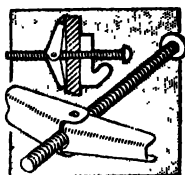


Fig. 19.
Spring toggles.

THE GRAVITY TOGGLE

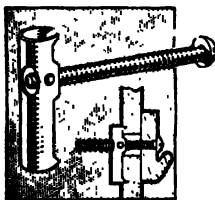


Fig. 20.
Gravity toggles

This is suitable for fixing to thin and hollow walls where the material is not more than $\frac{1}{2}$ in. thick. It consists of a metal member suspended on the end of a screw. When inserted horizontally through a hole of $\frac{3}{8}$ in. diameter and turned round, the long end falls down by gravity and is drawn against the reverse side of the material by turning the screw with a screwdriver (Fig. 20).

THE RAWLANCHOR

This is used where it is required to withdraw and replace the screw at will. It is fixed by inserting the Rawlanchor and screw into a hole bored in the material, after which it is collapsed by turning the screw (Fig. 21). It is available in three sizes.

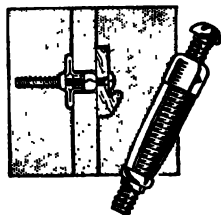


Fig. 21.
Rawlanchors

TO HANG HEAVY PICTURES AND MIRRORS

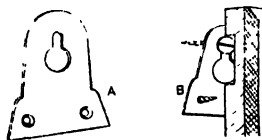


Fig. 22. How to hang heavy pictures and mirrors

These are best hung on mirror plates. (Fig. 22 A.) The plates are screwed to the back of the framework and hang on countersunk screws driven into plugs in the wall. Flush mirrors are fixed as shown at 'B', to make an inconspicuous job.

WALL FIXTURES

Shelves, mirrors, cupboards, etc., attached to the wall are generally regarded as forming part of the house. (See **RENTING A HOUSE OR FLAT**, p. 25)

Ceilings

TREATMENT OF DAMP AND STAINED PATCHES

FIRST deal with the root cause (see **ROOFS: MINOR REPAIRS**, p. 89), then, by adequate ventilation the discoloured areas must be allowed to dry. Next, the whole ceiling is prepared for redecorating, by the removal (by washing, or scraping) of old distemper and ceiling paper. When thoroughly dry, paint the stained areas with one coat of flat-oil paint, or with oil-bound distemper; this seals the affected parts and prevents further discolouration. If this precaution is neglected the stains will almost certainly reappear through any distemper or paper applied latter.

DISTEMPERING A CEILING

Before beginning work, remove carpets, pictures, and movable articles, and cover remaining furniture with dust sheets until re-decoration is completed.

In rooms of average size the ceiling is the largest unbroken area and its treatment is made much easier if two step-ladders and a builder's plank can be borrowed for the occasion, particularly during the actual distempering—a job which should be executed as quickly and continuously as possible.

Success depends mainly upon: (1) correct surface preparation; (2) the use of material of suitable consistency (see **DISTEMPERING**, p. 171), and (3) mode of application.

Begin work on the side nearest the window, applying a liberal coating of distemper with a distemper brush 6in. wide. A 1ft. wide strip is first applied across the whole ceiling and then continued methodically in a series of 2ft. wide strips. Always work from right to left and apply each strip overlapping upon the edge of the previous one. Avoid missing small areas of the work.

Splashing of floors, etc., can be reduced by beginning work with a dry brush and never dipping more than two inches into the distemper. The bristles should be scraped frequently on the rim of the bucket to remove distemper accumulated at the roots.

PAINTING A CEILING

Although the initial cost of finishing a ceiling in flat-oil paint may seem expensive, it is, over a period of years, quite comparable with

papering or distempering. Advantages are: (1) paint is easily washable, and keeps its appearance well; (2) washing down is less messy than that of distemper; (3) re-painting often requires one coat only; (4) paint is steam-resisting, unlike distemper which tends to flake. Emulsion paint, which needs two coats only for a ceiling, is less expensive and steam does not condense on its surface. (See PAINTING, p. 174)

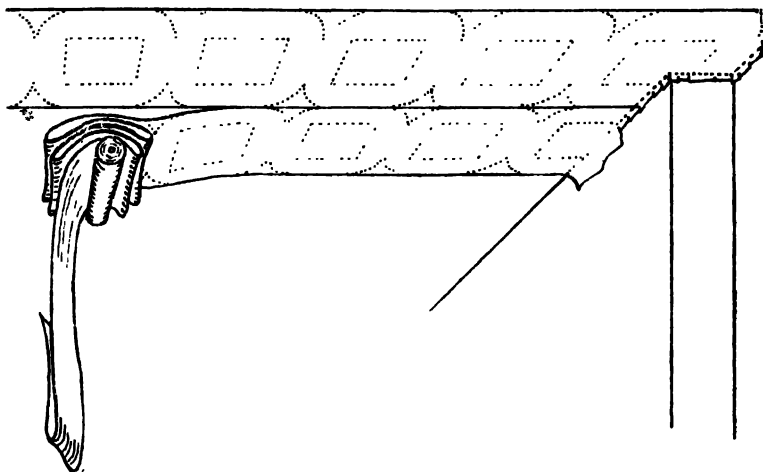


Fig. 23. Papering a ceiling is facilitated by folding and supporting the length as illustrated

PAPERHANGING A CEILING

Correct surface preparation and the use of good flour paste are essential to success (see PAPERHANGING, p. 183). Work is begun on the window side, each length of paper being hung parallel with the window frame. The lengths must be cut about 6 in. longer than the width of the ceiling, to allow for trimming at the ends. The joining together of short lengths is unsightly and should be avoided.

Before pasting, remove with scissors all selvages neatly and accurately; next, fold the paper as illustrated (Fig. 23) in readiness for hanging. An odd roll of paper is used to carry and support the folded portion, leaving one hand free to attach the matching edge against the cornice (moulding around the ceiling) or, alternatively, to a pencil line drawn across the ceiling at 20½ in. from and parallel to the wall. Apply the paper in a right to left direction, brushing out any creases with a clean, soft brush as the folds are released one by one.

To keep the paper running straight along a pencil line is not easy, but the course of the paper can be changed towards the right, or left, merely by using diagonal brush strokes in the required direction. The paper should run quite straight if brushed mainly in a lengthwise direction.

Following the hanging of each length, mark faintly with a pencil surplus paper at either end, and trim with scissors to fit neatly into the angle between cornice and ceiling, or, where no cornice exists, to overlap about half-an-inch upon the walls. This overlap is hidden when the walls are papered. Apply subsequent lengths similarly, taking care to match any pattern.

EFFECTS OF COLOURS ON HEIGHT AND PROPORTION

(1) Tints should be very pale, otherwise their light reflecting value is considerably reduced and ceilings appear low, thus reducing the apparent size of the rooms. (2) White ceilings give an impression of height and spaciousness, and, if lighting conditions are good, the white may be broken by the addition of a slight trace of the wall colour—producing a broken white related to the general scheme. (3) The effect of tints can only be assessed by viewing an actual sample in the position it is to occupy, i.e. held in contact with the ceiling and viewed from below. Tints which appear satisfactory in a good light appear much darker when applied to ceilings where daylight is less intense. (See also WALLS: SUGGESTED COLOUR SCHEMES and WALLS: TO CLEAN, pp. 92, 90)

CEILING FIXTURES (see LIGHTING, p. 132).

Floors

GROUND floors, in houses built today, are most likely to be of the solid type. This means a concrete sub-floor, a layer of damp-proofing substance, and sometimes a third top-layer which may be of fine concrete, a composition tiling or some kind of thin wood-block flooring.

SURFACES OF SOLID FLOORS

JOINTLESS FLOORING

Often the damp-proofing layer is of pitch mastic or one of the similar types of jointless composition flooring. *Pitch mastic* is resistant to grease and oil and so specially suitable for kitchen, though it is sometimes left as the final layer throughout the ground floor. It can be laid in several colours and, if first painted with a colourless floor

seal, will polish up satisfactorily in the ordinary way. It tends to soften slightly in heat and dent under continuous weight.

A jointless flooring is useful for re-surfacing old stone or concrete floors that have become cracked or uneven. The laying is an expert job only to be undertaken by a specialist.

RUBBER FLOORING

Various types, including tiles. Suitable for bathrooms, and passageways with heavy traffic, but less so for kitchens, for though warm, resilient and easy to clean, rubber flooring is not grease-resistant. After washing (never scrubbing), latex polish brings up a shine.

CORK AND COMPOSITION TILES, 'MAN MADE' WOOD, WOOD BLOCK, AND PARQUET

All these make an excellent warm top layer for sitting-rooms, halls, etc. The fact that they may be polished (follow the maker's instructions for all composition types) and then left uncarpeted largely offsets the initial expense.

OTHER POINTS ABOUT SOLID FLOORS

If carpets are to be laid directly on concrete, a damp-proof underlay should first be stuck down with a waterproof adhesive. Similarly, lay linoleum or plastic floor covering with a waterproof adhesive.

Stone or cement floors should be scrubbed with hot soda water; soap makes the surface very slippery. If the floor is dusty, swab with a solution of $\frac{1}{2}$ lb. of waterglass to 4 pints of warm water and allow to dry. This surface can then be wax-polished or painted if liked. Floor paints also take well on wooden floors or linoleum. The surface must be free from dirt or polish. Two thin coats are better than one thick. Do not walk on the surface for 48 hours. When quite hard, polish in usual way.

WOOD FLOORS: GENERAL CARE

Sweep daily with a soft brush. Wash off any muddy foot-marks with warm soapy water and dry thoroughly. Periodically, apply a little wax polish, leave for some minutes, and then rub up. Daily, rub up polish with a soft duster or mop. *To renovate parquet or wood-block flooring* rub up with turpentine, or turpentine substitute. Use a clean, soft duster to finish off and absorb surplus as you work. Where necessary, dip medium-fine steel wool in the turpentine and rub each block the way of the grain to remove stains or marks. When clean, apply fresh polish and rub up in the usual way.

TO STAIN A FLOOR

Remove all traces of old covering, including hardened adhesive or old varnish (to remove old varnish, see **FURNITURE FINISHES**, p. 141). Use a knife to get off spots of paint and bleach bad stains with diluted oxalic acid. Remove or punch in old tacks or brads, levelling surface off with plastic wood. Fill any nail-holes with linseed oil putty. Rub smooth, using coarse sandpaper. Sweep the floor, scrub it the way of the grain with soap and water, and leave to dry. Make a filler of soaked newspaper and concentrated size (see **DRAUGHTS**, p. 102) and pack this tightly into any spaces between boards. Allow to set and rub down with sandpaper.

Prepare stain. A good water stain is 2oz. permanganate of potash in $1\frac{3}{4}$ pints of boiling water. Make up in an old tin, as it will stain china. Apply stain liberally to the clean floor with a cloth pad on a stick or with a brush—it will damage the bristles. When dry, give another coat if necessary. Oil stains (thin with equal parts of linseed oil and turpentine) can be bought in a greater range of colours, and help to preserve the timber, but they take much longer to apply. They should be brushed on (bristles are *not* damaged), avoiding overlapping marks. To do this, treat strips of two or three planks width at a time.

Leave water stain to dry for 24 hours; oil for several days. When dry, rub the latter all over with a coarse cloth. Finish by wax polishing. If a glossy surface is required, give one coat of weak jellied size, leave to dry for about two hours and then apply floor varnish (see **VARNISHING**, p. 186). Place rugs where most wear will come, but after the first surfacing, do not polish under rugs.

DRY ROT IN FLOORS

Dampness and bad ventilation encourage dry rot, which is a mould that destroys wood. Its presence is detected by a musty smell and infected woodwork is soft and crumbling. When tapped, the wood sounds dead and soft. The first essential is to have ventilation and drainage improved. The infected woodwork must be cut completely away, and the surrounding wood, even if it looks quite healthy, be frequently soaked in creosote for some weeks. Then the new wood can be put in.

DRAUGHTS ALONG FLOORS

Solid fuel fires, which must always draw a supply of air before they can burn, are often responsible for draughts along the floor. Many modern fireplaces are constructed to draw the necessary air from under the floorboards, which reduces draughts considerably.

Sometimes a gap between a shrunken wainscoting and the floor

causes the trouble. To remedy, tack on thin laths of wood with tiny pins. Then stain or paint to match. Smaller spaces, or spaces between floorboards, can be filled with home-made *papier mache*. Soak torn-up newspaper in water until it forms a pulp—it may take several days. Pour off surplus water and mash in 1 oz. of concentrated size to each pint of pulp. If the draught is due to a gap between the floor and the door, fit a draught excluder (see DOORS, p. 102).

Doors

REVERSING A DOOR

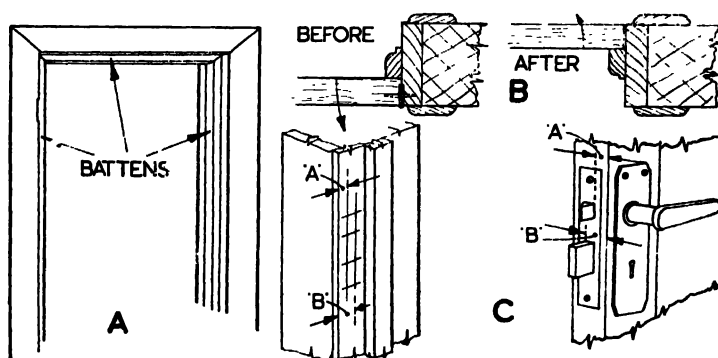


Fig. 24. How to reverse a door: (A) before; (B) after

REMOVE the screws securing the hinges to the door frame, stand the door aside, and remove the lock striking plate. The door jamb comprises three battens nailed to the door frame (Fig. 24 A). It is often moulded at one edge as indicated. The whole jamb must be shifted across the framework to the position shown, and is done by prising the jamb away from the door frame with a wide chisel (Fig. 24 B). Shift to the new position and nail in place. To re-hang the door, stand the lower hinge corner on a scrap of $\frac{1}{4}$ in. plywood laid on the floor, get an assistant to hold the door in position and mark the top and bottom of both hinges on the door frame. Remove the door and chop out new hinge recesses. Take the measurements for these from the old recesses.

Replace the door, fix with one screw in each hinge, and check that it closes properly. Replace the remaining screws, push door close, and mark the top and bottom of the latch bolt on the door-frame. Square lines across the frame. With a marking gauge measure

dimension 'A' (Sketch C), and transfer this to the door frame. Reset the gauge to dimension 'B' and mark again. Chop out the recess and check that the door closes properly. Put the striking plate in register with the recess, mark round the plate, and recess it into the door frame. Screw in place and check that the door closes properly.

Disguise the old hinge and striking plate recesses by filling in with plaster of paris, which is painted over when hard.

TO FIT RISING BUTTS

A door which catches on fitted carpeting or a thick rug when being opened is best fitted with rising butts (Fig. 25). These lift the door as they open and are made for right or left-handed fixing. To determine which, stand *outside* the door and check on which hand the hinges are placed. The 'pin' half screws to the door frame, the 'socket' half to the door. Remove existing hinges, enlarge the recesses with chisel and mallet and let in the butts equally on door and frame

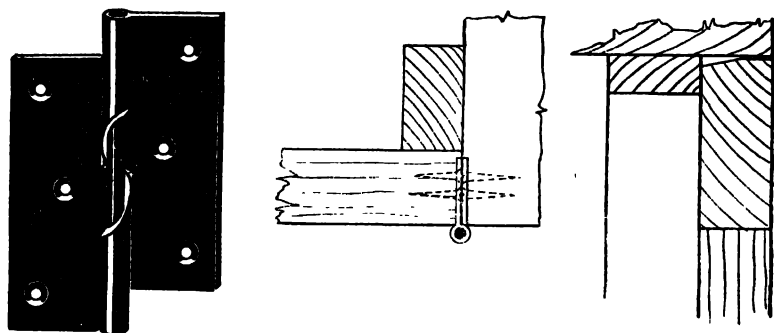


Fig. 25. To fit rising butts to a door

as shown. Fill existing screw-holes with wooden plugs brushed with glue and cleaned off level. If the door fits closely, it will be necessary to bevel the top as shown so that it does not catch as it rises when opening.

DRAUGHTS UNDER DOORS

Draught coming under a door standing well clear of the floor as in Fig. 26 A, can be cured by making the draught-ramp shown at B. It is merely a strip of lino cut to fit the door opening and packed with folded carpet underfelt, until the door bottom just slides on to the top of the 'hump'. Small tacks or gimp pins are best for securing the lino-brads as lino pins 'pull through' quickly in this case.

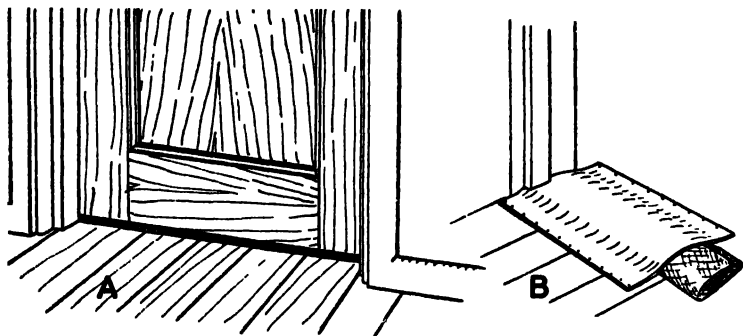


Fig. 26. A draught ramp to obviate draughts under a door

Rising draught stops, of proprietary make, fitted to the bottom of the door are an alternative. Several types are made which lift clear of the floor as the door is opened. They are fixed with two or three screws and careful positioning is necessary. This is best done by fixing the device temporarily with small tacks, partly driven in, which can be easily shifted until the correct position is obtained.

FITTING A MORTISE DEADLOCK

The main feature of the mortise deadlock is that it is wholly contained within the body of the door, that is to say no part of the lock is accessible from either side of the door except of course the keyhole.

Fig. 27 *A* shows where to place the lock so that when cutting out the mortise, the door rail joints are not cut away. Sketch *B* shows the lock itself with the bolt projecting and the various measurements which will be needed. Measure 'A' and 'B' and mark these on the door edge. Put the lock flat on the door face with the lock face-plate overhanging and pressed against the edge. Make sure that the body of the lock is at the right height, i.e., between the two lines of dimension 'B'. Take a twist drill just large enough to go into the keyhole, slip it in and give it a twist. This will mark the correct height of the keyhole, but will of course be too near the door edge by dimension 'D'. Make this measurement and shift the keyhole mark back by this amount.

The next job is to cut the mortise, which is most easily done as follows. Take a woodworkers' twist bit of diameter 'A' and bore a row of holes in the door edge. Keeping the bit parallel with the door face is fairly easy, but to ensure that it is level, hang a bunch of keys on the plain part of the bit. So long as the tool is level, the keys will

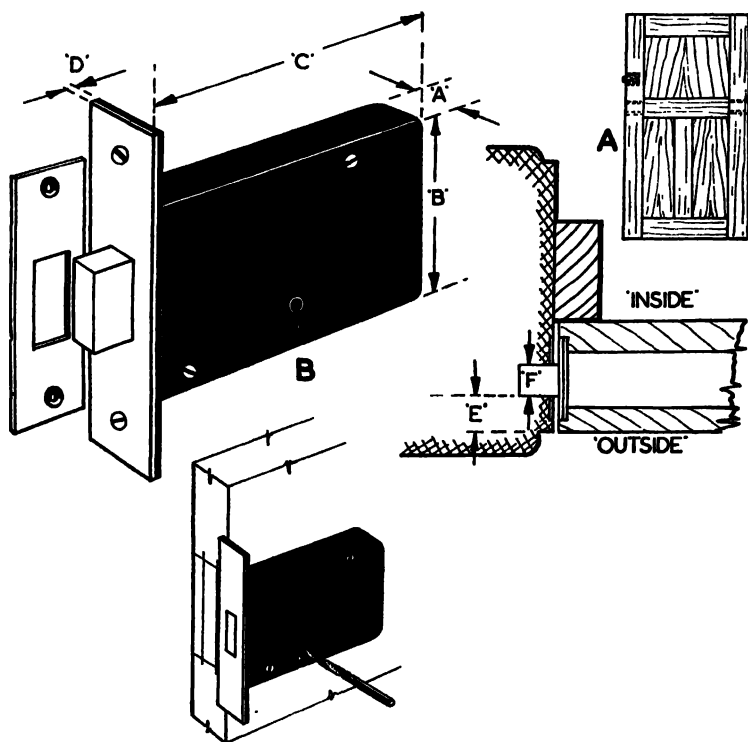


Fig. 27. How to fit a mortise deadlock

stay in place, but if it is tilted, they will 'creep' in the direction of the tilt. Clear out the cavity with a mortise chisel until the lock fits in position. Mark round the lock face plate and chisel out the recess until the lock fits flush. Sight the keyhole to check that the height is correct, then remove the lock and cut the remainder of the hole with a keyhole or pad saw and chisel. Screw the lock in place. Fit the metal keyhole plates on both sides of the door.

Next, throw the lock, close the door and mark the position of the bolt on the door jamb. Mark lines across the edge of the frame with a try square and pencil. Measure dimension 'E' on the door edge and mark this on the frame, also the thickness of the bolt, dimension 'F'. Cut out the recess with a mortise chisel and check that the bolt enters smoothly. Now put the striking plate in register with the recess, mark round the plate and recess it into the door frame. Finish by screwing the plate into position.

LOOSE HANDLES

Door handle fixing screws which continually work loose can be tightened by cutting the end as shown in Fig. 28 with a hacksaw, then *gently* spreading apart by tapping in a blunt screwdriver blade. This will cause the threads to bite in the tapped holes and effectively prevent them coming unscrewed.

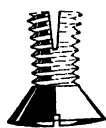


Fig. 28.
Split screw
for fixing
handles to
doors

DOOR FINISHES — PREPARING and PAINTING: INTERIOR and EXTERIOR (see PAINTING AND ENAMELLING WOODWORK, p. 179, also GRAINING AND VARNISHING, p. 185).

STYLES IN FRONT DOORS

To thousands of people you'll never know your home will be nothing more than a front door and three or four windows. Of these the door can do much to make or mar the exterior.

Although certain types of doors were favoured at particular periods it is a matter rather of suitability and fitness, since styles overlap or recur and many charming period houses had doors added later. Giving a modern suburban house or simple country cottage a heavy panelled door from a Georgian mansion will never make them 'important'. It will only make them ridiculous. Equally, what could be more absurd than a simple boarded cottage door on a three-storey town house?

A panelled door is quite the most suitable for any town, or 'important' country-house, except a frankly modern one. The arrangement of panels can be varied considerably. For a Queen Anne or William and Mary style house a good choice is the eight-panelled door with two small panels at the top, four longer panels in the centre with two to match the top underneath. To be really in keeping with the period the panels would be raised. For Georgian and Regency houses panels are usually reduced to six—two smaller ones at the top with four longer ones below. The panels can be either raised or sunk.

For later houses of the same type, the more familiar four-panelled door, with sunk panels, is suitable. Glass doors, provided they are straightforward affairs with square or rectangular panes and wooden glazing bars, are practically dateless and can be successfully used in houses of almost any period. They are useful in modernizing an old house with a dark hall. The 'artistic' leaded light variety or the 'picturesque' diamond panes are best left to Ye Olde Tudor Tea Shoppe.

The close-boarded door and modifications of it are timeless for the cottage or less formal country house. This type consists of lengths of

board mounted on cross pieces at the back which are often strengthened by diagonal battens. It often has a sloping wooden draught excluder fixed to the bottom—an essential where the door leads straight into the living room. For a seventeenth-century cottage the same type of door studded with iron studs would be in keeping. A slightly more formal version of this door has the lengthwise boards framed by uprights and horizontals. This is good for the hybrid modernized cottage or small house, since it adds a certain unpretentious dignity in keeping with the new role of the house.

The flush door made by processes developed during the war is good for the really modern house. Often this door is made like a sandwich with layers of timber outside a centre core of honeycomb material. These doors are quite warp-proof and stand up exceptionally well to weather conditions.

Windows

RENEWING SASH CORDS

SLIDING sash windows are suspended on weighted cords housed in boxes built into the window framing (Fig. 29). Assuming that all four cords are to be replaced, remove the guard beads (screwed or nailed around the inside lining), lift out the inner sash, and prise out the parting bead which is usually fitted into a groove and nailed top and bottom. Remove the outer sash and the pocket pieces, and retrieve the weights. Examine the pulleys and lubricate with vaseline. Replace worn pulleys if required.

For replacement, use best quality sash cord, well stretched to free it of bends or kinks. To get the cord into the boxes a length of twine and a 'mouse' is required. The 'mouse' is merely a short strip of thin lead folded and hammered close over the twine. It is bent slightly, slipped over the pulley, and retrieved through the pocket opening. Tie on each sash cord and draw over the pulley and out through the pocket. Two general forms of weight are used and the cords are tied as shown in Fig. 29. Re-fix the cords and sashes as follows:

Outer Sash: Pull weights to top of box and temporarily fix cords to the pulley stile with a nail just under the pulley. Measure distance 'A' on the sash, deduct 3 in. and transfer the measurement to the outer pulley stiles. Straighten down the cords and cut to this length. Fix into the grooves with three large-headed clout nails, spacing the upper one at least 1 in. from the top of the sash. Swing sash into the framework, release the temporary fixing nails, and check that the sash moves to the top of the frame and stays shut. If it sags open, it is most likely due to the cords being too long. If so, swing out the sash,

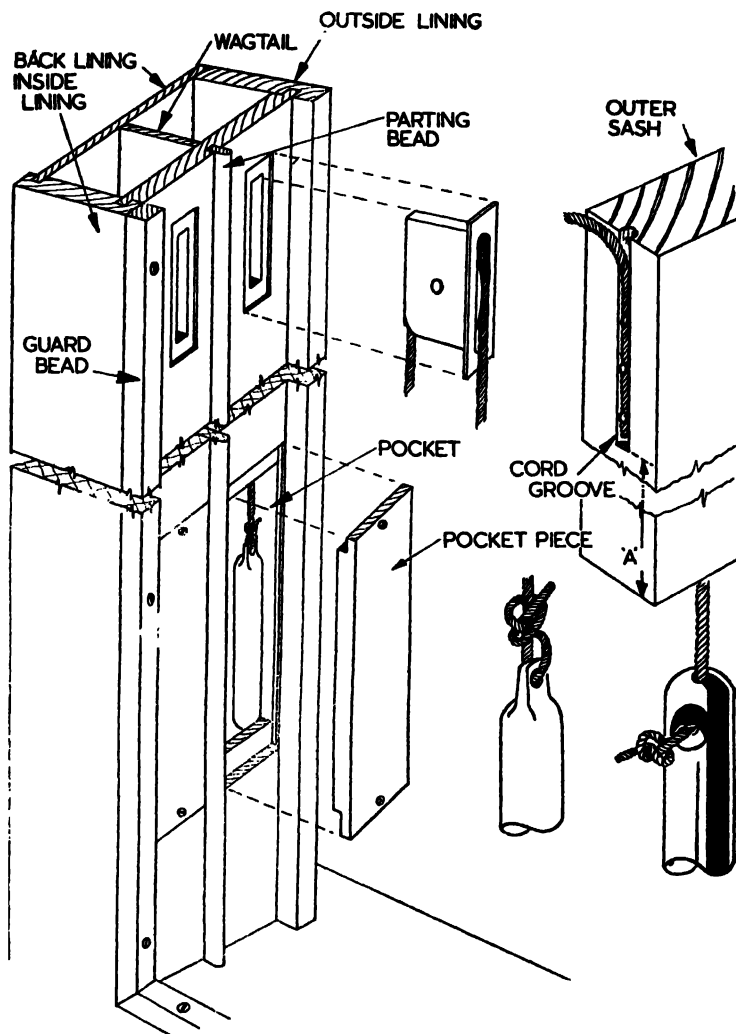


Fig. 29. How to renew sash-cords

remove, shorten, and re-nail each cord in turn. Examine parting bead and, if worn, replace with new bead, first giving it a coat of paint.

Inner Sash: Thread cords, tie on weights, pull up, and temporarily secure as before. Check that weights are tight up to the pulleys, then measure for the cord lengths, and cut and nail to the sash grooves as

described. Release temporary nails and check that the sash closes right down. (If the cords are too short the weights will foul the pulleys and prevent the sash closing.) Examine the guard strips and replace with new ones, if worn, then nail or screw back in position.

CURING RATTLES IN WINDOWS

Sliding sash windows must obviously be free to slide up and down, and this in itself makes them prone to rattling. Either insert wedges between the sashes to brace them apart, or fit cam-shaped metal discs each side for the same purpose. Severe rattling may arise from worn guard or parting beads, and is best cured by replacement (for details of fixing, see *RENEWING SASH CORDS*, p. 106).

Rattles in casement windows are usually due to the window not properly closing shut when latched. One cure is slightly to recess the handle fixing plate into the window frame to pull it closer when shut. Alternatively put cardboard behind the hasp, which has the same effect.

CASEMENT HINGES

Special cranked hinges (Fig. 30) can be fitted to casement windows to enable the outside to be cleaned from within the room. Made in pairs, the hinges are 'handed' and are determined by standing

inside the room and quoting left or right hand as required. Left-hand hinges are shown, opened to indicate clearance obtained.

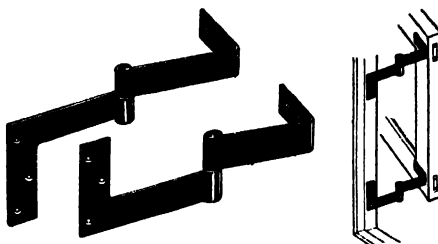


Fig. 30. Special cranked hinged to allow the outside of casement windows to be cleaned from within

RE-GLAZING WINDOWS

A small window pane may be replaced as follows: (1) Hack out the old putty (using a strong knife and hammer) and remove fragments of broken glass. Then chip out remaining putty in which the pane was embedded and remove any brads. An eye-shield should be worn. (2) Measure the opening to be re-glazed and obtain a square of glass $\frac{1}{8}$ in. shorter and narrower and, in addition, sufficient putty for the job. (3) See that the new pane fits easily into place; if not, chip out any putty overlooked previously. (4) Apply a little putty into the angles of all rebates and then press the glass gently into position, applying pressure round the edges only. (5) Secure the new pane with brads (one at each side) nailed carefully into the wood-

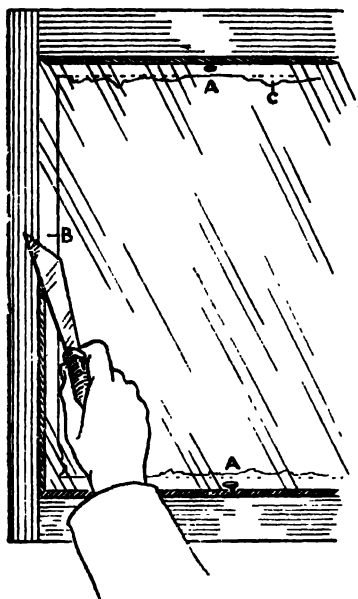


Fig. 31. How to re-glaze a window

frame edge with the inside work and to include other rebates and edges with the outside painting.

Cased frame windows, i.e. those with frames sliding vertically in separate rebates are opened to the fullest extent, to permit the painting of parts normally hidden. One rebate is painted with the outside, the other being treated as interior work. The whole of the sill belongs to the outside. (See PAINTING THE OUTSIDE OF A HOUSE, p. 180)

PAINTING THE GLASS

In the absence of surface porosity—which assists the adhesion of paint—glasswork must be cleaned thoroughly with methylated spirit and water to remove any grease. When dry, a ready mixed high-gloss paint will adhere satisfactorily. Window panes are sometimes obscured with this type of paint, brushmarks being eliminated by stippling (dabbing) the wet paint with a soft brush.

REPAIRING ROLLER BLINDS

THERE are two types of roller blind: cord operated and spring operated. The first type has a plain roller with a pulley wheel at one

work, but not tight against the glass. During this operation the hammer head should slide across the glass. (See Fig. 31). (6) With a knife fill in the rebates with putty, smoothing and bevelling the surface to match adjoining windows. Finally, remove surplus putty from the inside of the frame.

PAINTING WINDOW FRAMES

After removing rust, loose putty, etc., window frames are painted in the following manner. Casements, i.e. hinged frames are opened to allow rebates and edges to be painted. The remainder is completed in sections, working from the top downwards, care being taken that painting is neat and straight at the junctions between putty and glass. It is usual to paint the hinged rebate and its adjoining

end. An endless cord is wound twice round the pulley wheel to give it a grip, whilst at the bottom the loop is held taut with an adjustable friction knob. Alternatively, a single-ended cord is used and is wound on to the pulley as the blind descends. Pulling the cord winds up the blind. Both types need little attention, but sometimes require new blind material. Remove the old material and measure and cut the new. Top and bottom edges must be exactly square or the blind will run to one side when pulled up. To ensure square cuts fold the material down the centre without making a crease, putting the side edges exactly together. Cut small V-shaped nicks at the edge through both pieces of material, spacing the nicks apart by the required length of the blind, plus a turning allowance for the 'bottom' lath. Open out the material and using the nicks as a guide, cut off the surplus with a straight edge and sharp pocket-knife. Stitch the pocket for the bottom lath on a sewing machine, insert the lath, and fix with the small brass plate which holds the guide cord. A V-shaped groove is usually formed in the roller and the top edge of the blind is laid in this, covered with a length of tape, and fixed with the special four-pointed blind pins on the original blind or with small gimp pins or very small tacks. (Large tacks are liable to split the roller.)

Spring operated blinds use a hollow roller containing a rod with a spiral spring coiled around it. Pulling down the blind winds up the spring and when down the roller is held by ratchets fitted at one end. This has a square projection (Fig. 32) which rests

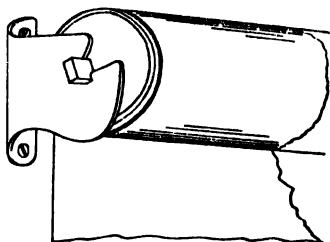


Fig. 32. Repairing roller blinds

in a slotted fixing bracket. Sometimes the ratchets are held by an external lever to which a cord is fixed. Pulling the cord moves the lever, which lifts a pawl out of the ratchet teeth, and the blind runs up.

Another type has spring-loaded pawls which engage the ratchet. When the blind runs free, the pawls are held away from the ratchet by centrifugal action, but when the blind is checked, they drop into place and hold the blind secure. Damp sometimes causes the pawls to stick through rusting and these may often be freed with thin lubricating oil (sewing machine type). To fit these blinds, screw the slotted bracket to the left-hand side of the window and the pierced bracket on the opposite side. Slip the plain end of the roller in the pierced bracket, give the square end two or three turns to make sure that the blind is lightly tensioned when fully 'up', and slide this end into the slotted bracket. Pull the blind down and check that it reaches to the sill. If it stops before completely unrolling, too much tension has been

put on the spring. Slacken off one turn at a time until the lath reaches the window-sill. Fixing new blind material on this type of roller is done exactly as in the previous ones, but the special blind pins must be used. Tacks are useless as their points project into the hollow interior and catch on the spring.

WINDOW TREATMENTS

CURTAINS: How to choose, see CHOOSING FURNISHING FABRICS, p. 68. For cleaning, making and fixing, see SOFT FURNISHINGS, p. 153.

Drains and Plumbing

FUNDAMENTAL PRINCIPLES

One of the most important, but often least considered, items in a house is the drainage system. If this fails, then the house becomes technically 'uninhabitable', and the Local Authority, represented by the Sanitary Inspector, has full powers to act accordingly.

The fundamental principle of drainage is that the pipes must be capable of receiving and discharging all the waste matter, either liquid or solid, that is washed into them, and at no time must foul air be allowed to escape, as this is a source of danger to the inhabitants of the house. Drainage regulations, for this reason, are stringent, even in remote rural areas, and the tendency is for the stringency to increase as technical knowledge and medical science develop.

'SOIL' AND SURFACE WATER DRAINS

In most districts there are two separate systems, one to receive the foul water from sanitary fittings, baths, w.c.'s, and sinks, and the other catering for 'surface water', i.e. rainwater from roofs. In London, however, a single system takes the whole of the waste water, both rainwater and 'soil'.

SOIL DRAINS

The drains which take foul water are the more important, and the byelaws require pipes of specially tested quality. The systems must be capable of being cleansed properly in the event of blockage or long disuse. For this reason, at all junctions of drains either an inspection chamber, colloquially known as a 'man-hole', or a 'rodding eye', must be provided, so that access for rodding is available. The pipes running through the man-holes are 'half-round channels', so that the working of the drains is visible.

There should be a 'trap' at every point where a waste pipe connects to a drain; this trap provides a water seal, thus preventing the escape of foul air. The first man-hole, i.e. the one at the head of the system farthest away from the sewer, should be ventilated. This is done by means of a pipe which is carried up the wall of the house to a point at least 3ft. about the eaves.

DIFFERENCE BETWEEN DRAINAGE AND PLUMBING

Pipes *outside* the house constitute the 'drainage' system, and those *inside* the house the 'plumbing' system. All connections from the 'plumbing' to the 'drainage' system are made outside the house, the sink and bath discharging over an open gully.

Responsibility for the plumbing and drainage systems rests with the house owner up to the boundary of his property. The last access to the drains, immediately inside the boundary, is the 'intercepting chamber', which is also ventilated by means of a 'fresh-air inlet'. This stands up above the ground and has a mica flap valve to allow the passage of air inwards only.

DISPOSAL OF SEWAGE

MAIN DRAINAGE

In practically all urban areas the drainage system connects to a main sewer in the road, maintained by the Local Authority.

SEPTIC TANK OR CESSPOOL

In some urban areas, and in most rural areas, the drainage is collected into either a 'septic tank' or a 'cesspool', which it is the responsibility of the houseowner to maintain. The difference between the two methods of disposal is fundamental. In a septic tank the foul water and sewage is purified by filtration until the liquid is pure enough to be allowed to drain away into the ground. A cesspool, on the other hand, is merely a receptacle for collection of sewage and foul water, which has to be emptied by mechanical means. This is done by the Local Authority at specified intervals. Cesspools are not advisable, and are rapidly being superseded by septic tanks. The difference in initial cost is not great, and no one building a new house today, or re-modelling an old one, should be tempted to make the small saving in cost the reason for accepting the cesspool system of drainage.

OBSTRUCTIONS IN DRAINS

Stoppages are caused by something getting lodged in the pipe and impeding the flow of water. It may be a piece of rag, broken bits of cement, even roots of trees growing into the drain, or alternatively an

accumulation of soil washed into the drain. Begin investigation at the intercepting chamber, which may itself be blocked. Lift the cover and take a look inside. If it is full of water, then the blockage is likely to be in the trap. If the chamber is empty, then the blockage is higher up. Repeat the process at the next man-hole, and so on through the system, until the blockage is found. Rod the length of blocked drain and poke out the obstruction. It is well to rod the whole drain as a precautionary measure.

LEAKING DRAINS

These are tested by either a chemical, smoke machine or water test, but such a test should be undertaken by a builder or plumber.

CLEARING A STOPPED-UP SINK

The trouble may be either a blocked trap, or, less frequently, a blockage in the sink waste-pipe. The sink trap is a U-shaped tube

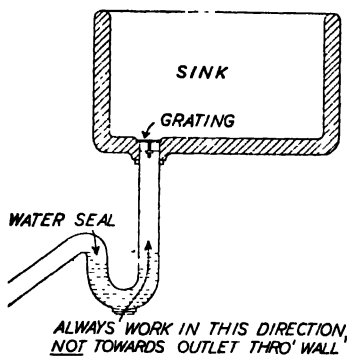


Fig. 33. Clearing a stopped-up sink

which provides the water seal. The trap has a plug at the bottom, which must be unscrewed, in order to give access to the pipe. Before unscrewing, remember to place a bucket under it, to catch the water which will pour out as soon as the plug is removed. The outlet from the sink to the trap is fitted with a grille, usually held in place by a central screw. This, too, should be removed, and the obstacle blocking the pipe forced up into the sink by means of a cane or stout wire, working from the open plug at the bottom of the trap. Never try to clear the trap by working the cane away from the sink, i.e. towards the outlet pipe, as this may cause a further blockage at an inaccessible point. (See Fig. 33.)

When replacing the plug, it is a wise precaution to grease the thread and make sure that the tow forming the washer is in place. Screw the plug up tightly.

In the older types of sink, the outlet grating is often permanently cemented into the bottom of the sink. In this case the only means of clearing a serious blockage is to use a force pump—a plumber's job. By moving the handle of the pump up and down, the obstruction

is drawn up towards the plug hole, and can then be removed. Quite often a minor blockage merely consists of a soapy mass of tea-leaves and waste, which can be forced out by a powerful jet of water from the tap, provided that the bottom plug of the trap is opened first.

BURST PIPES

The very first step is to turn off the water at the nearest stop-cock. In most small houses there is only one, where the main water enters the house, though the water stored in the cistern must also be coped with if the burst pipe is supplied from there. If the flow of water is too rapid to be dealt with effectively, the only hope, until the arrival of the plumber, is to plug the pipe leading from the cistern. These are only emergency measures, to reduce the flow to a trickle which can be caught in a bowl. Remember that in very cold weather a pipe bursts when it *freezes* and not when it thaws. So take a good look at known danger spots in your house before the thaw sets in. A slit pipe can usually be detected by the glisten of ice which has formed at the crack.

ADJUSTING THE BALL-VALVE OF A FLUSHING CISTERN

One of the most annoying faults in a flushing cistern is failure of the water to flow when the handle is pulled. The chief cause of this is that the water-level in the cistern is not high enough, most probably due to the rubber washer in the ball-valve swelling and so cutting off the water too soon. The simplest remedy is to bend the lever, which carries the ball-valve, upwards. Do this most carefully preferably with an adjustable spanner, so as not to damage the working parts. If the lever is held firmly in one hand and bent with the other, there is not much likelihood of damage. Never attempt to adjust the lever by applying force to the ball itself. Another remedy, and a more permanent one, is to shut off the water and replace the washer in the valve by a slightly thinner one.

RE-WASHERING A TAP

Make sure that you have a supply of new washers of various sizes. Half-inch washers are most frequently used, but it often happens that one's guess as to size is wrong, and there is nothing more annoying than to dismantle the tap, only to find that the new washer does not fit. First, then, turn off the water and unscrew the tap, using a large adjustable spanner. (Remember that many taps have left-hand threads!) If the tap is connected to a lead pipe, extra care

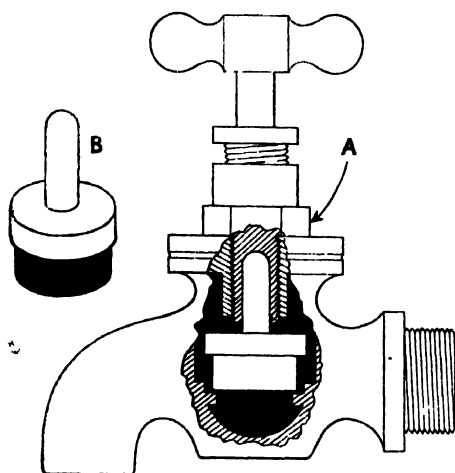


Fig. 34. To re-washer a tap: (1) turn off water at main; (2) open tap to full extent; (3) unscrew spindle at point (A) and lift out; (4) lift out jumper, fit new washer on it at (B), and replace in position; (5) replace spindle and tighten up; (6) turn on water at main

with a new washer without turning off the water—a great boon.

is necessary to avoid damage to the joint by using too much force. Modern chromium-plated taps have a domed cover, which must be removed to expose the nut. When the nut has been loosened the upper part of the tap can be lifted out, revealing the 'jumper' to which the washer is fixed. The stages in re-washing are shown in Fig. 34.

A recent development in tap design, and now manufactured under patent, is the 'Supatap' (Fig. 35) which can be fitted

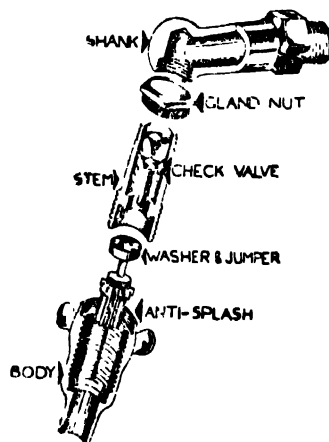


Fig. 35. 'Supatap' showing provision for re-washing
(Courtesy of F. H. Browne and Co. (Engineers) Ltd.)

PART 3.—HOUSEHOLD INSTALLATIONS



The Hot-Water System

GENERAL SYSTEM OF WORKING

HOT-WATER heating is achieved by 'circulation', i.e. when water is heated it expands. The expansion causes the water to rise into the hot tank from the boiler, thus starting up a circulation which continues as long as there is a difference in temperature between the water in the boiler and that in the tank. Because the hottest water is always at the top, the 'flow' pipe leaves the boiler at the top and enters the hot-water tank near the top. The 'return' pipe carrying the colder water back to the boiler for heating leaves the tank and enters the boiler near the bottom. In order that the system may work, the hot-water tank at its lowest point must be above the top of the boiler.

SOLID FUEL WATER HEATING

There are two systems; the first in which the cooking stove, a combination grate of some kind, or the living room fire is fitted with a 'back-boiler'; the second where the hot water is supplied by an independent boiler. (See also KITCHEN EQUIPMENT, p. 77)

Both systems have much to commend them, their suitability depending on the circumstances of the particular household and the efficiency of the actual appliance used. The 'back-boiler' has the disadvantage that the room in which it is fitted must be heated all the year round whenever hot water is required. Independent boilers are efficient, but some are dusty, and with the exception of some stream-lined models, they are not very attractive for a 'living-kitchen'. With the addition of an electric immersion heater for summer or peakload use, a 'back-boiler' meets the needs of small households. It is most suitable in rural areas, where the kitchen range is used for cooking also.

Boilers in Hard-Water Districts. In hard-water districts, the lime in the water causes 'furring' of the inside of the boilers and hot-water pipes. Not only does this reduce the efficiency of the boiler, but if the 'furring' is severe, there is a risk of explosion due to a pipe becoming blocked. Boilers in very hard-water districts should be cleaned out, usually once a year, but oftener in severe cases of furring.

Soft-Water Districts. In very soft-water districts, special piping and

boiler finish may be necessary. For instance, in peaty districts the advice of the local Water Undertaking should be sought as the use of some metals is prohibited by them.

CLEANING A BOILER

This, though tedious, is not a difficult operation. First empty the boiler by turning off the supply and open all the taps on the hot-water system to drain it completely. Sometimes a tap for draining the boiler itself is provided, but not as often as one would wish. Then remove the top plate of the boiler casing to expose the mud-hole, which must be opened. The joint will need 'breaking' as it is cemented tight. If there is no drain-pipe, be prepared for a small amount of water escaping as the mud-hole cover is removed. Empty the last few 'teacups' of water by hand. Then clean off all loose fur, using a cold chisel if necessary, or tapping the outside of the boiler with a hammer. Remember to examine the pipes immediately adjacent to the boiler at the same time. If these are furled, tap them lightly with a hammer; the fur will drop down into the boiler and can be removed. Do not leave any loose pieces of fur in the boiler as these may rise into the pipes and block them.

Now replace the cover. First clean it, smear it well with graphite or pipe-jointing composition, replace the joint if necessary, and screw up. Fill up the system and watch the joint for leaks.

LAGGING OF PIPES

Lag pipes in exposed places, particularly the roof, as a protection against frost. This can be done by felt strips bound with wire, canvas, or one of the less unsightly insulating materials such as glass silk.

GAS AND ELECTRIC WATER HEATERS

These may be of either the storage or 'instantaneous' type, but electric instantaneous heaters are uneconomical in consumption. The choice of heater depends upon the amount of hot water required and the frequency and quantity of use by the household. It is always advisable to consult the local showrooms of the Gas and Electricity Boards as to probable consumption before finally deciding. (See also KITCHEN EQUIPMENT, p. 78)

STORAGE HEATERS

These work on the same principle as hot-water boilers heated by solid fuel, i.e. there is a storage unit corresponding to the hot-water tank, in which hot water is stored until required. In the instantaneous type the water is heated on its way to delivery.

There are two kinds of instantaneous gas heater, the single-point and the multi-point. In the single-point the flow of water is controlled at its outlet, in the multi-point at its inlet. Single-point heaters should therefore be fixed near or at the point where hot water is required, e.g. the kitchen sink or the bath. The multi-point supplies hot water through the normal taps on the fittings, but in order not to waste draw-off water it should be fixed near the most frequently-used tap. A fairly recent development—most useful in the kitchen—is the instantaneous boiling-water gas heater. The tap can be set to supply boiling, hot or warm water.

There has been a great advance in the design of instantaneous heaters which are now fitted with safety devices which make the appliances practically foolproof. Examples are shown in Fig. 36. (Maintenance twice a year.) Remember that gas heaters require a flue, and should not be installed in unventilated spaces.

One disadvantage of the instantaneous type of heater is that there is no stored hot water, and therefore no heated linen cupboard, unless, of course, the house is centrally heated. This can be overcome by having a special type of small tubular electric heater fitted in the airing cupboard itself. These are inexpensive and consume very little current.

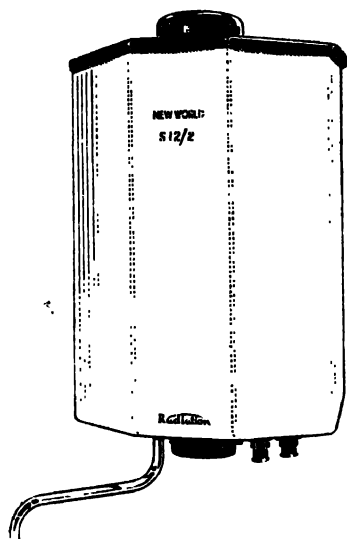
AN ELECTRIC IMMERSION HEATER

This is most useful for 'boosting' a solid fuel hot water supply, but lagging, to conserve the heat of the cylinder or tank in which it is fitted, is most important. If the system includes heated towel rails or linen cupboard coils, the consumption of electricity is likely to be excessive.

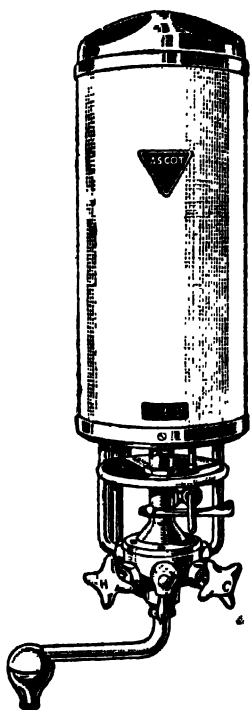
Do remember, whenever considering the installation of a modern appliance in an existing house, that the efficiency of the system depends to a very great extent upon the arrangement of piping. No appliance can give good results if the pipe layout is bad, out-of-date, or unsuitable. Failure to realize this has caused more disappointment than any other factor. It is false economy to omit the rearrangement of piping to suit the new conditions.

USING THE HOT-WATER SYSTEM FOR SPACE HEATING

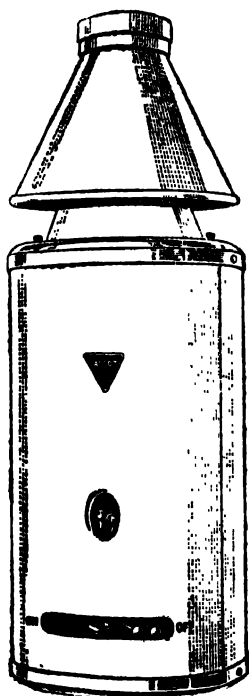
Modern appliances are now of much greater efficiency than the older types, and many of them supply surplus heat to be used for space heating. Makers of appliances will always give technical advice on this point, and will take into consideration the particular circumstances of your case, and they should be consulted. It is not to the advantage of a reputable firm to advocate the addition of space-heating if their appliance is not designed for it, and they will



Left:
"New World"
 Single point-
 Storage Water
 Heater; 2 gallons
 of hot water
 always available
 (Radiation
 Group Sales Ltd)



Right: Ascot Multi-point
 Gas Water Heater;
 supplies hot water for
 the whole house. En-
 tirely automatic (Ascot
 Gas Water Heaters Ltd)



Above: The Ascot Boil-
 ing Water Heater; gives
 warm, hot or boiling
 water instantly, accord-
 ing to the turn of the
 dial (Ascot Gas Water
 Heaters Ltd)

Fig. 36. Gas instantaneous water heaters

not do so. Some appliances *need* a radiator or radiators to use the surplus heat, as they have been specifically designed to provide space heating.

THE QUESTION OF COST

Fuel costs are lowest with solid-fuel water heaters, but initial installation (for a modern type) may be expensive. Also, some labour is involved. Gas and electric heaters cost more to run, but when other points are considered, they may prove more economic, especially for the small urban household. (See also KITCHEN EQUIPMENT, HOT WATER SUPPLY, p. 78)

Solid Fuel Fires and Stoves

IN recent years, largely owing to the need for fuel economy, there has been a great advance in the design and efficiency of solid fuel appliances.

SPACE HEATING

For room heating there is now a choice of:

- (a) *The traditional open fireplace.*
- (b) *The smokeless fuel open fire with gas ignition.* This is effective and inexpensive and accurate air control regulates rate of burning, so that the fire can be shut down for several hours without attention. Though these fires will burn most types of solid fuel, they are usually run on coke, which makes little dust or smoke. The gas ignition obviates the need for laying with wood and paper.
- (c) *The well-grate with hinged lid.* In this type when the lid is lowered, the open fire is transformed into a continuous-burning closed fire. One type consists of a complete fire-clay interior sunk slightly below the hearth; another has fire-bars and an adjustable 'fret' in the front to regulate the draught. Both types give excellent radiant heat and are obtainable in a range of sizes to fit most standard fireplaces. Some models are known as 'portable', since they are not permanently fixed into the fireplace opening and are therefore a movable fixture. A 'portable' is an excellent alternative to a fixed appliance, where cost or other reasons make the latter impracticable. To ensure efficiency, they must not be used in rooms larger in volume than that for which they are designed.
- (d) *The continuous-burning open-close stove.* In terms of fuel consumption this type is the most efficient of all. Stoves can be inset into the fireplace or free-standing. The latter take up more room but are easier to install and remove.

All the above types heat by radiation, but types (c) and (d) also utilize heat, normally lost through the surrounding brickwork, to warm the currents of air which are circulated round the back of the grate. This warm air can be let into the room, or if ducts are installed, carried to an adjoining room or room above. Some prejudice exists against convection heating owing to the supposed risk of obnoxious fumes from the fire getting into the ducts, but if the house has been built to accommodate the necessary structural work, there is no fear of this happening. This form of heating is officially approved, and is in fact advocated.

Faulty Burning of Open Fires. The cause of this is due, in almost every case, to the flue, which may itself be faulty, or unsuitable for the type of appliance installed. People who have a rooted objection to draughts and seal every crack almost hermetically should remember that the circulation of air is essential for all combustion. Sometimes the insertion of an air-brick at high level will cure the trouble, but generally speaking, if the draught-regulating device is properly handled there should be no difficulty.

All reputable manufacturers of solid fuel appliances employ technical staff whose advice is at the disposal of their clients, both old and new. It is advisable, if in any doubt or difficulty, to consult the makers either direct or through their local agents. If this is not possible, then the advice of a heating engineer should be sought.

COMBINED COOKING AND HEATING STOVES

These have also been developed considerably. The 'back-to-back' type, which requires a special flue arrangement incorporated into the structure of the house, is excellent for the small home where one fire must do double duty, though it is not so economical in fuel consumption as single-duty units. This kind of continuous-burning, multi-purpose stove combines an open-close fire in the living room with a cooking range and hot-water boiler in the kitchen.

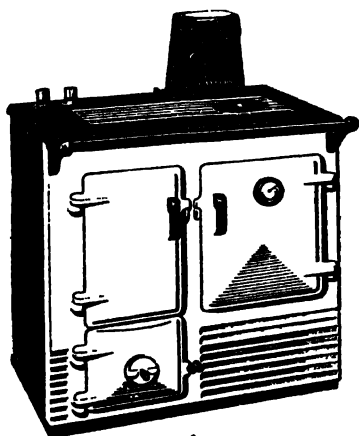
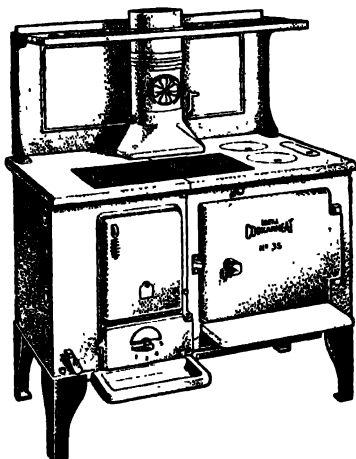
COOKING STOVES

Examples of various types of cookers and stoves are given in Figs. 37 and 38, pages 122, 123.

The three main types are:

- (a) A modern form of the old kitchen range, with an open fire heating a side oven, with flues controlled by dampers.
- (b) The partly-insulated cooker, continuous burning on both coal and smokeless fuel. When there is no cooking to be done, the fire burns at a low rate. Damper control regulates the cooking temperature. A back-boiler supplies hot water.
- (c) The fully-insulated 'heat storage' cooker, burning smokeless

Right: Ideal 'Cookanheat' No. 35—a popular-priced combined stove for living-room-kitchen. Supplies domestic hot water (Ideal Boilers and Radiators Ltd)



Above: The 'Rayburn' No. 1—A medium-priced insulated cooker continuous-burning on both coal and smokeless fuels. Supplies domestic hot water (Allied Iron-founders Ltd)

Right: The Esse 'Fairy' heat-storage cooker. Has hot plates and thermostatically controlled ovens always at cooking temperature. Supplies domestic hot water (The Esse Cooker Company)

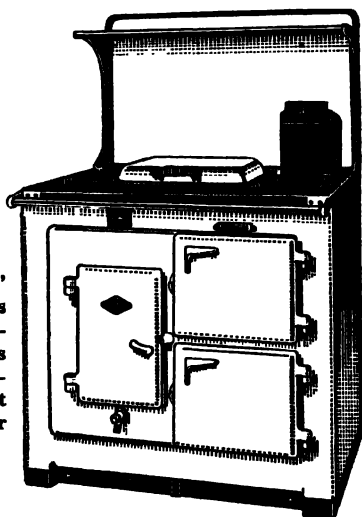
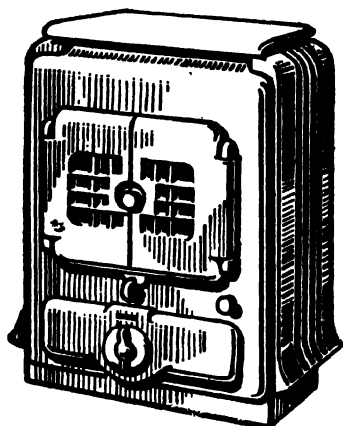
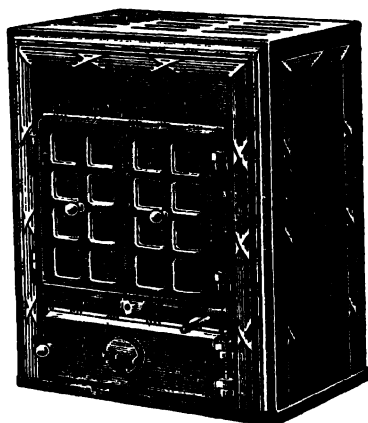


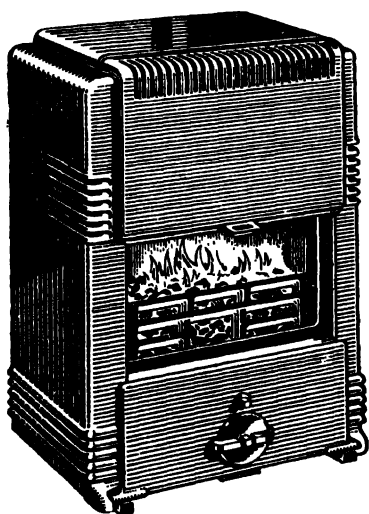
Fig. 37. Solid Fuel Cookers



Left: Free-standing Siesta stove, No. 3c. Will heat a fair-sized room and provide good supply of domestic hot water (Radiation Group Sales, Ltd)



Above: Free-standing Cozy stove, model 10A. A popular, inexpensive type, suitable for a fair-sized room (The Cozy Stove Co. Ltd)



Left: Free-standing Otto heating stove No. 2, an excellent choice for the large or cold aspect room (Allied Ironfounders Ltd)

Fig. 38. Open or Closed, Day-and-Night-Burning Heating Stoves

fuel. This type relies upon the thickness of the metal casing for the retention of heat. The hot plates and ovens are therefore always ready for cooking. Ovens are thermostatically controlled. A boiler (optional) gives a good supply of hot water.

Type (c) is the most efficient, in every respect, and also the most economical in fuel consumption, though initially the most expensive. Type (b) comes mid-way in both efficiency and cost, and is a good choice for the average small family.

A most valuable source of information on solid fuel appliances is the Women's Advisory Council on Solid Fuel, which has showrooms in South Molton Street, London W1, where all types of appliance are displayed. There is also a demonstration kitchen.

SMOKY CHIMNEYS

The most frequent cause is down-draught, due to a cold or damp flue, or to a tree growing too close to the house and causing air currents. Down-draughts can be cured by raising the chimney stack, cutting down the tree, or by fitting a special cowl. Many cowls, though serving their purpose, are unsightly, and should not be used indiscriminately on houses of good design. Sometimes a smoky chimney merely indicates that the stack is not high enough to clear some neighbouring building or roof. Here again the only cure is to raise the stack so that it clears the obstruction.

Chimneys should, of course, be swept regularly, particularly if wood-burning fires are used. The modern method of 'vacuum cleaning' is a great boon to housewives, saving the necessity for sheeting the furniture and cleaning up afterwards.

REPAIRING FIRE-BRICK LININGS

In time, all firebrick linings to open grates crack, particularly if big fires are burned regularly. Special fire-resisting cements of proprietary make can be obtained for repairing such cracks. It is best to widen and undercut a narrow crack before filling it with cement, so that the cement can get a proper hold. A very badly cracked lining should, of course, be replaced entirely, as repair under these circumstances is only a makeshift arrangement. Give the cement time to set properly before attempting to light a fire, and follow the maker's instructions carefully.

REPLACING BROKEN HEARTH TILES

Broken tiles should be cut out, the 'bed' thoroughly cleaned, and the new tile bedded in fire-resisting cement, as for firebrick linings. Examine the joints of adjacent tiles for cracks or deterioration, so that they can be re-bedded at the same time if necessary. It is better to err on the side of doing too much than too little.

Gas Supply and Appliances

A GAS LEAK

SLIGHT leaks at joints often leave a perpetual smell of gas in a room. Locate the leak by rubbing wet soap over the joins. If there is a leak, it will bubble. Rub several layers of soap over it to block it. Bind with insulating tape and it will last until attended to.

If the leak is large, or in a flexible pipe, cover it with your hand until someone can put out any gas flames or other naked light in the vicinity. Turn off the gas at the main. There is always a cock just before the meter. Report it by 'phone if possible to the Gas Board or to the police in case of emergency, immediately. If it is inconvenient to turn off the gas for long, a very temporary repair in a rigid pipe can be carried out with putty, plasticine, dough, etc., and insulating tape.

ADJUSTING THE AIR FLOW TO GAS BURNERS

If a gas burner is clean and still inefficient, this may be due to the air supply being out of adjustment. All burners have some adjustment to control the air supply: some have a slide fitted over a slot in the burner-stem: others have a milled wheel on a screw. On the newer models, there is a locking device to hold the control in the correct position. Inspection will show the obvious way of making the adjustment.

Uncover the inlet, and the flame will become more yellow, the blue cone in the centre shorter, and it will burn noisily. The lightest draught will cause the flame to go back into the burner and light at the jet. Too little air is uneconomical, and the gas burns with a short blue flame. Move the adjustment until the flame is at the maximum intensity, and fix it in position with the locking screw.

CARE OF GAS EQUIPMENT

GAS WATER HEATER

These are kept adjusted by the gas company and the interior must be cleaned by them periodically. Keep all flues free of obstructions.

GAS FIRES

The elements become very brittle with the constant heating, and must be moved very carefully when the gas fire is being cleaned or

dusted. Replace them at once if they become broken. The reflectors of a portable heater must be kept brightly polished with a little furniture cream. Do not use metal polish on chrome. The air and gas supply should be adjusted so that the whole element glows when the fire is full on, but so that there is no flaring at the top.

To clean a Gas Cooker: See **CLEANING METHODS**, p. 192.

TO CARE FOR GAS REFRIGERATOR

Set to maintain a temperature of 45 degrees F. Do not open door unnecessarily. Never place anything hot in the cabinet. Place strong-smelling foods near top: use covered containers. Fill and replace ice-drawers immediately after removing ice. Defrost regularly, following the manufacturers' instructions. After defrosting, wash out again before cooling. Use luke-warm water to which a little bicarbonate of soda has been added.

SMALL GAS APPLIANCES

Most gas cookers have a point from which a gas poker, iron, or gas-heated washing machine may be run, but it is advisable to have a special gas point with a bayonet fitting laid on. If in doubt, consult the local Gas Showrooms.

Hire purchase of gas stoves. See **HIRE PURCHASE**, p. 49.

READING THE GAS METER

When reading the gas meter, disregard the little dial at the top as this is for testing purposes. Alternate dials revolve in a clockwise and anti-clockwise direction, with a clockwise one on the right. Read from left to right, noting the lesser number when the indicator is between two figures. The four figures which are written down give the number of hundred cubic feet of gas consumed. Gas is charged for in therms, which depend on the heating properties of the gas, and may not always be the same. The 'gas-man' or the local show-room will explain how to work out the simple conversion sum for your meter-reading.

Electrical Systems and Appliances

HOW THE DOMESTIC INSTALLATION WORKS

THE electric current supplied for domestic use by the local Electricity Board's mains is at a safe pressure of 200-240 volts. The current passes through the meter to a main switch, which controls the whole circuit, and to the fuse box. The fuse box, which contains

the individual fuses, is also a main junction, the current being carried from it in pairs of wires, to the various points of supply in the house.

The fuse is the safety device provided in each pair of wires throughout the installation. If any pair of wires becomes overloaded, or if the current rises to a dangerous pressure, the fuse wire, which is held in a porcelain holder, melts and breaks the circuit, so cutting off the current.

CONSUMPTION OF ELECTRICITY

Electric lamps are of a stated number of watts, i.e. 40, 60, 75, 100, 150, or 200. Electricity is supplied in units; a unit is 1,000 watts (1 kilowatt) per hour. A 40-watt lamp burns 40 watts in one hour, so that it will take 25 hours to consume 1,000 watts, or one unit.

Average Consumption of Domestic Appliances

<i>Cooker</i> (for average family)	$\frac{3}{4}$ –1 unit per person daily.
<i>Refrigerator</i>	1 unit per day.
<i>Water Heating</i>	1 unit for every 5 gallons of water heated. (Assuming thermostatically controlled heater.) Average consumption for a small household: 2–3 units per day for all domestic purposes, plus 2–3 units a day for each bath.
<i>Heating: Electric Fires</i>	(2 bar) $1\frac{1}{2}$ –2 kilowatt—from $\frac{2}{3}$ – $\frac{1}{2}$ hour per unit. (1 bar) $\frac{1}{2}$ –1 kilowatt—from 2–1 hours per unit.
<i>Towel Airer</i> (120 watts)	8 hours per unit.
<i>Laundry: Washing Machine</i> (medium sized)	4 hours per unit.
<i>Drying Cabinet</i>	$\frac{1}{2}$ hour per unit.
<i>Electric Iron</i>	2–3 $\frac{1}{2}$ hours per unit.

Portable Appliances—performance per unit:

<i>Kettle</i>	Boil about 16 pints of water.
<i>Toaster</i>	Make 150 slices of toast.
<i>Coffee Percolator</i>	Make 20–30 cups of coffee.
<i>Fan</i>	Operate for 10–20 hours according to type.
<i>Vacuum Cleaner</i>	Run for 6–7 hours.
<i>Radio</i>	Operate all-mains set for 16–20 hours.
<i>Clock</i>	Operate for 2 months.

CARE OF ELECTRICAL APPLIANCES

Do not use 'power' equipment such as a kettle or fire from a lighting socket. Do not use thin flex for them, nor join a flex with insulating tape. Make sure that not more than two pieces of equipment such as an electric washing machine, iron, vacuum cleaner, fire, kettle, etc., are run off one fuse at the same time. Check all flexes at least once a month. If they are worn, attend to them immediately.

Keep all electrical equipment clean and free from dust and fluff, especially near the elements of fires. Crackling and small blue sparks usually indicate dust, and frequently occur where the element is bolted into the reflector. Remember to turn off the fire before touching this.

For fuel economy's sake, lag immersion heaters, switch off one bar of a fire as soon as a room is warm (or fit a thermostatic control plug), and use up residual heat from ovens and stoves.

How to Clean an Electric Cooking Stove. See **CLEANING METHODS**, p. 192.

How to Care for a Refrigerator. See **GAS APPLIANCES**, p. 126.

HOW TO SERVICE A VACUUM CLEANER

The most common faults are: (1) worn or broken flex; (2) defective switch; (3) burnt-out armature; (4) worn commutator brush, (5) leaking bag or hose.

Worn or broken flex should be renewed immediately, as it may easily cause an electric shock. Similarly, if the defective switch is due to a broken spring, as is often the case, it is quite easy to fit a new one. Fit one end on the fixed locating pin, compress the spring and release it so that the other end beds down on the locating pin in the tumbler. Nowadays it is generally more satisfactory to fit a completely new one.

A burnt-out armature generally indicates that the machine has been used on too high a voltage. The motor fails completely, and there may be signs of charring on the insulation of the armature winding. Repair is a job for an electrician. A worn brush is indicated by loss of speed in the motor, or by erratic running. This again requires attention by a skilled mechanic.

A badly torn or heavily worn dust-bag is hopeless to repair, but an accidental tear in an otherwise sound bag can be repaired in the same way as a torn raincoat, by using a 'Mend-a-Tear' outfit. If possible, repair the tear on the *inside* of the bag, so that the air

pressure when the machine is running will keep the patch in place. If the inside surface of the bag is unsuitable for holding the patch, then an outside patch is the only possible repair.

General hints on the use and care of the machine are: (1) Do not run the machine with the bag removed, particularly if using polishing attachments; (2) Do not lend your machine to a friend for use on a different voltage from your own; (3) For thorough overhaul (which should be done periodically), it is best to take the machine to a service agent.

DEALING WITH A BREAKDOWN

In modern installations, electrical breakdowns are not a frequent occurrence; it is not surprising, therefore, that many householders are not familiar with the steps necessary to trace a breakdown to its source.

Taking, as an example, a reading-lamp which fails, the steps are: (a) take out plug or switch off at mains; (b) examine the lamp itself and see whether the filament is broken; (c) if the filament is intact, look at the fuse and see whether this has 'blown'; (d) see whether the flex is frayed, or feel for an actual break in it.

Should all the lights fail, then the main fuse may have blown, or even the Electricity Board's own fuse may have failed. (These fuses are sealed, and can only be repaired by the Board's own maintenance engineers.)

REMEDIES

Broken filament. The remedy is to substitute a sound lamp for the defective one.

Broken fuse. First switch off the electricity supply at the main switch. In old installations this is most important. Then withdraw the porcelain fuse holder from the fuse box, revealing the broken fuse wire. Slacken the screws, hold the fuse wire in position, and take out the broken wire. Thread in new fuse wire of the same gauge. Never try to overcome the nuisance of a fuse which breaks frequently by substituting wire of heavier gauge. As mentioned already, the fuse is a safety device, and although thicker wire may prevent further trouble of frequent breakdowns, it involves the risk of burnt-out flex in the installation, due to overloading. Replace the fuse holder in the fuse box.

HOW TO REMOVE A WORN FLEX TO A CEILING PENDANT

First of all make sure that the main switch is off. Next, remove the lamp and the shade, unscrew the cover of the ceiling rose, and slide it down the flex until it rests behind the lamp-holder. Inside the rose

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will be found a slotted screw holding the flex in place; loosen this screw and free the flex.

Now deal with the lamp-holder, which is fitted with two milled rings, one for gripping the shade and the other holding the two main portions of the socket together. Hold this ring in the left hand and unscrew the back section; the porcelain centre which carries the end of the flex will then be exposed. Free the ends of the flex by slackening the grub screw. The flex will still be held at the back by two wedges and a cap. Slacken the cap and draw the flex clear.

To fit the new flex, thread the two ends between the wedges, then push back the covering of the flex and expose the rubber casing. Cut off about $\frac{3}{4}$ in. of the rubber, and scrape the bare ends of the wire with a knife to make sure that they are clean and bright. Twist the strands of each clockwise and clamp the two ends to the contact pillars. Holding the back of the lamp holder in the left hand, pull on the flex so that the porcelain insulator slips back into its case, then screw up the cap, thus tightening the wedges.

The new flex is now ready for attaching to the ceiling rose. Bare the ends of the wire as before, and thread them through the cover. Pass the two ends of the wire through the holes in the dividing bridge and clamp them under the heads of the screws in the contact plates. Screw on the cover.

The same procedure is followed for standard lamps and other similar fittings, except that instead of the ceiling rose the 'contact end' is a switch plug.

RE-WIRING A THREE-POINT PLUG

Cut away the worn flex. Then cut back two inches of the braid covering the rubber-covered wires. Bind the rough ends with insulating tape. Cut back the coloured wires (usually red and green) so that they are slightly shorter than the black, which has to reach to the thicker terminal which is the earth pin. Strip $\frac{1}{2}$ in. of rubber insulation from each wire. Wind a wire round each terminal, clockwise. The coloured wires to go to the thinner terminals and the black to the 'earth'.

Make sure that the insulation is near each terminal; that the wire is wound round clockwise so that it tightens with the screw; that the screws are tight; that no strands of wire are sticking out.

Clamp the flex down into the plug. The clamp should come round the insulating tape binding. Fix the top of the plug in position and tighten the screws.

READING THE ELECTRIC METER

The normal meter for electricity supply has four dials, each with

a revolving pointer, showing thousands, hundreds, tens, and units respectively (reading from left to right). The amount of electricity consumed is obtained by adding together the figures at which the pointer is resting on each dial. When reading the 'thousands', 'hundreds' and 'tens' dials, if the pointer is between two figures (which it is most likely to be) read the *lower* figure. On the units dial, read the *higher* figure.

If it should happen that on any of the first three dials the pointer is exactly opposite a figure, look at the next dial on the right. If it reads below 2, read the full number. If it reads higher than 7, read the number *below* that indicated by the pointer.

Oil-Burning Appliances

GENERAL PRINCIPLES

PARAFFIN-BURNING apparatus, whether for cooking, heating, or lighting, needs daily, intelligent care, and does mean rather more work than gas or electricity. On the other hand it is economical, and the modern cooking and heating stoves are practical and efficient. They are specially useful as auxiliaries to solid fuel stoves, being quick to get going. The heating stoves are light and easily portable.

COOKING STOVES

THERE are three main types: (1) circular wick burners, (2) burners fitted with asbestos collars instead of a wick, (3) wickless pressure burners which vaporise the paraffin. The last two kinds are very economical in oil consumption and give a clean flame. On the other hand, type (1) is the most easily adjustable and so preferred by many cooks, especially when an oven is fitted over one or more of the burners.

POINTS TO WATCH

See that the stove stands quite level and in a sheltered position away from a draught. Follow maker's instructions exactly and keep scrupulously clean. Always wipe up spilt paraffin before lighting. Never cut wicks, as this tends to leave an uneven edge, but wipe the burned portion away with soft paper. Renew asbestos collars as necessary (usually every few weeks) and use the 'pricker' to keep the jets of the pressure-type burner clear. To clean lamp chimneys, which must be kept free from soot, use a special chimney mop.

Polish outsides with a clean duster. If washing is absolutely necessary, use detergent and warm water, drying thoroughly.

HEATING STOVES

THESE give a good heat, and shouldn't smell if kept scrupulously clean, though the fact that they are flueless has disadvantages as well as advantages. As well as the ordinary circular wick burner variety, there are convector heaters with asbestos wicks and models with fire-clay radiators heated by the flame from paraffin vapour. Pressure-type stoves must be treated according to the maker's instructions.

TO LIGHT AN OIL BURNER

Turn up the wick, and light it right round. Turn it down gently and replace the chimney. Then turn up again, but watch for some minutes to see that it does not 'flare'. After the lamp has warmed up, regulate as desired. Many of the most efficient modern models are regulated to give a blue flame.

TO LIGHT A PRESSURE LAMP

When the oil reservoir has been filled and the lamp cleaned, pour methylated spirits into the channel round the burner stem and set it alight. When it is almost burned away, pump up the pressure. With pressure-lighting lamps, the incandescent mantle is now lit.

'Lighting Systems

ELECTRIC LIGHTING

As well as the original ceiling lighting, by pendants or bowl fittings, concealed cornice-lighting, wall brackets, tubes and standard lamps are now used in the home. All these have their uses, according to circumstances, though unfortunately, efficiency and harmony often conflict. The most efficient lighting fitting is probably the flush-to-the-ceiling spherical type used in kitchens or bathrooms. For living rooms, a good rule is general diffused lighting without glare, plus concentrated lighting at specific points where needed.

POINTS TO WATCH

'Pearl' or one of the new 'silverlight' type of bulbs should be used if the lamp is in the line of vision. Always have bulbs of sufficient wattage. A central pendant needs to be not less than 100 watts,

except in a very small room. In movable standard lamps that give a smaller, but more concentrated pool, a less powerful bulb may be adequate.

LIGHTS FOR VARIOUS PURPOSES

A pleasant compromise for a dining room is an adjustable pendant fitting in which the bulb is entirely enclosed in a shallow circular 'box' of pleated paper or silk. The fitting can be drawn down on a pulley arrangement to any height. Although a fitting which hides the actual source of light is agreeable, take care to avoid materials that are too light-absorbent. One of the best fittings is made from 'flashed' opal glass. Even this absorbs about 20 per cent of the light. The mottled 'alabaster' and thick glass that are so common may absorb anything up to 80 per cent of the total light!

Wall lights are often nothing more than expensive decoration. The 'candle flame' type of lamp, quite apart from its artistic absurdity, is useless as a source of light. The bulbs are expensive initially and tend to 'blow' oftener than others. Wall fittings are now available in which ordinary bulbs of about 40 watts can be used, pointing either upwards or downwards. Shaded, they are just as decorative and much more efficient than the more usual kind.

Where a light is required for dressing, as in bathroom or over a dressing table, it should be so placed that it shines on the face and not on the glass and it should not be visible in the glass. An adjustable reflector—half tubular shape—is available for strip lights and properly adjusted will direct the light horizontally on to the face instead of downwards on to the glass.

Direct light from a 'pearl' or 'silverlight' type bulb is the best for 'desk' work and the best fitting the freely adjustable standard. Nevertheless a lamp that lights only the work in hand—such as one with a completely opaque shade—and leaves the rest of the room in darkness is bad for the eyes.

COLOUR IN LAMP SHADES

Efficiency and quality of light depend not only upon the actual fittings and light sources themselves, but upon the colour and texture of walls and fabrics. Lighter colours absorb less light than darker ones and a shiny surface such as paint or satin will reflect more than a dull one like distemper or linen. Worst reflectors are blues and colours containing blue, which is why these are practically never used for the lamp shades themselves.

Use lamp shades to supplement and enhance your colour scheme. The near-white light of electricity makes greys and greens seem cold and lifeless for example. Give the greys their depth back by using

pink shades and with the greens have a buttercup yellow. All fabric shades should be lined with white or cream. Nylon is the best material.

FLUORESCENT LIGHTING

The type of fluorescent lamp generally used is a straight glass tube giving a practically shadowless light. A wide range of colours are obtainable in fluorescent lamps, including one almost equivalent to daylight. Although extremely good effects can be obtained by this type of lighting, it is not generally suited for domestic use, except perhaps in the kitchen. The development in this field is so rapid, however, that this view may soon need revision. Fluorescent lighting has the advantage of a considerable saving in consumption of current, due to the fact that the light is so evenly diffused that a smaller number of lighting fittings is required.

The Electrical Development Association (2 Savoy Hill, London WC2) will give advice on all electrical problems and have an excellent technical advice bureau.

GAS LIGHTING

NOTABLE progress in gas lighting has been made in recent years, especially in the design of fittings. The British Gas Council (1 Grosvenor Place, London SW1) is the central source of information for all problems with regard to gas appliances.

Bottled 'Calor' Gas. Calor gas, supplied in liquid form, in steel containers is useful for rural districts without electricity or gas supplies. It requires smaller diameter service pipes than mains gas supply, but if piping is being installed it is advisable to make the pipes big enough for 'town' gas, should there be a likelihood of this becoming available. Ordinary lighting fittings are not suitable for use with liquid gas, and only those specially labelled or stamped *Approved for 'Calor' Gas* should be used.

OIL LAMPS

LAMPS of the 'Aladdin' or 'Tilley' type, which are 'boosted' by air pressure and have an incandescent mantle, give a comparatively brilliant and concentrated light. The principle is the same as that of the 'Primus' stove.

Cleanliness of the working parts and of the lamp glass is all-important with any oil lamp. It will work efficiently only if it is regularly cleaned and overhauled. (See OIL-BURNING APPLIANCES, p. 131)

PART 4—FURNITURE AND EQUIPMENT



Furniture

SIMPLE REPAIRS

LEGS AND FEET

THE back leg of a chair broken as in Fig. 39A, can be mended by glueing and screwing as shown. Bore the holes for the screw shanks, clamp the two parts together, and use a bradawl for the rest of the hole containing the screw threads. Separate the parts, brush on the glue and screw together. Where the broken part is missing, splice on a new piece as indicated at B. Turned stub feet usually break off fairly square as shown in Fig. 40, and the parts can generally be fitted together fairly closely. First bore a $\frac{3}{8}$ in. hole about 1 in. or so deep for the screw head, then bore right through for the shank. Fit the parts together to enable the leg part to be partly drilled in the correct place, then remove and deepen the hole as required. Coat the parts with glue, screw together and knock in a length of $\frac{3}{8}$ in. dowel to cover the screw head.

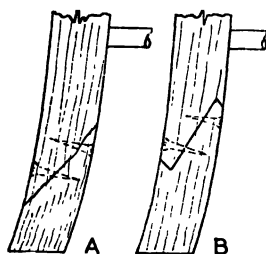


Fig. 39. Mending the back leg of a chair

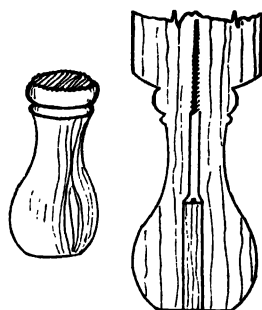


Fig. 40. Repairing break in a stub-footed chair leg

JOINTS AND FRAMEWORKS

The broken mortise and tenon chair frame joint in Fig. 41 is re-glued and reinforced with a screw driven through the leg into the tenon. It can be reinforced with a chair bracket as shown, let in for the sake of neatness. Arms of fireside chairs, pulled off by

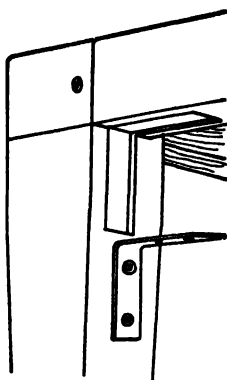


Fig. 41. Repairing a mortise and tenon chair frame joint

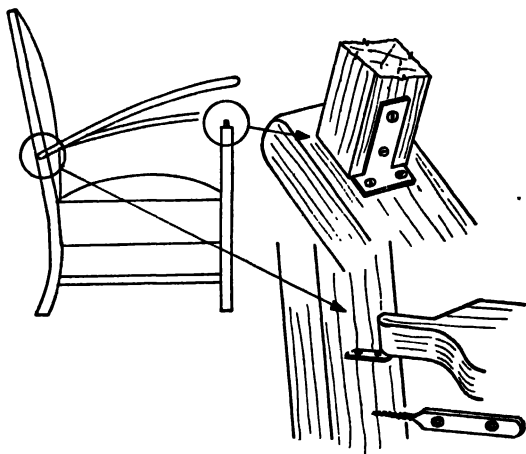


Fig. 42. How to re-fix the arm, pulled off by lifting, of a fireside chair

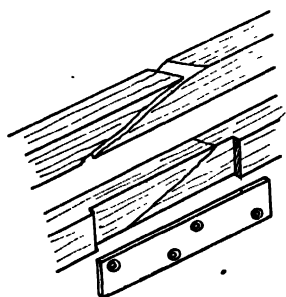


Fig. 43. Repairing the stretcher of a chair

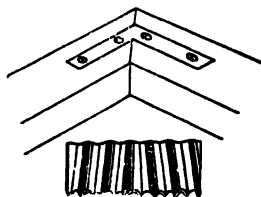


Fig. 44. Re-fixing the mitred corner joint of a kerb

lifting, are fixed with screws or a bent T-plate as in Fig. 42. A screw-plate can be used to re-fix the arm at the back. Stretchers which are broken in the centre are mended with a strip repair plate, Fig. 43.

Sometimes the mitred corner joint of a kerb comes apart and this can be re-fixed with an L repair plate as in Fig. 44. Alternatively a corrugated fastener as shown (available in several sizes), can be used. These are made with the corrugations at a slight dovetailing angle and draw the parts together as they are driven in.

CARCASE REPAIRS

Often an old chest of drawers or similar item shrinks and splits. Fill small splits with plastic wood, adding a little at a time and letting

each application harden before putting on the next. Build up slightly above the surface as the material shrinks upon hardening. Cut down level with a chisel and glasspaper. Wide splits are best filled by glueing in wedge shaped pieces and trimming down level with a scraper. Broken corners are cut back and a block glued in position and afterwards chiselled to shape. Both these repairs are shown in Fig. 45.

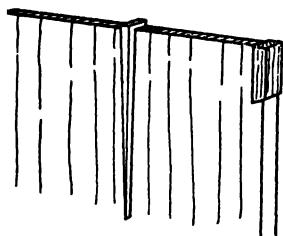


Fig. 45. Carcase repair to an old chest of drawers

wooden gauge and pencil as shown in Fig 47. Saw carefully and trim the legs to the marks. Where furniture glides have been fitted these must be removed before levelling and replaced when the job is completed.

LEVELLING CHAIRS, ETC.

Stand the article on a level surface, pack cardboard slips under the 'short' legs until the seat or table top is level, then mark all four legs using the simple

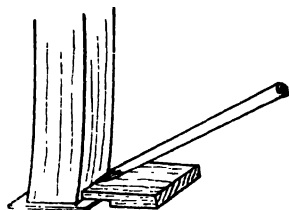


Fig. 46. How to level uneven chair legs

WOODWORM

Three kinds of beetle, or rather their grubs or 'worms', attack furniture. The *powder post beetle* concentrates on the sapwood of hardwoods (oak, mahogany, teak, but not deal or pine). Fine dust on the wood or floor beneath indicates that the grub is at work, or small holes show that the beetle has emerged. The life-cycle starts with the beetle mating and depositing eggs in crevices or old flight holes. Eggs hatch in about ten days and the grubs tunnel into the wood, remaining therein and tunnelling for about a year. Then they bore towards the surface, lie up just underneath it and turn into a chrysalis. In a few weeks the beetle emerges and bites its way out of the wood, to mate and recommence the cycle. The *furniture beetle* attacks soft and hardwoods indiscriminately, while the life-cycle takes about two years to complete. The *death watch beetle* is larger than the furniture beetle with a similar life-cycle. Exit holes are about $\frac{1}{8}$ in. diameter.

TREATMENT

Remove dust and wipe over *all* surfaces with proprietary insecticide, squirting it into any exit holes or crevices with a fountain-pen

filler or special injector sometimes supplied with the insecticide. Repeat at intervals, especially between May and August, for at least two years. Very bad cases are best treated professionally and are then fumigated in an airtight chamber.

FURNITURE FINISHES

Wax polish is an easily applied finish suitable for almost any type of wood. Unfortunately it dirties rather easily, needing periodical cleaning and re-waxing. On light woods, dirt easily shows and may get embedded in the grain. To prevent this, give one coat of white french polish before waxing. This is also essential on dark woods if an oil stain has been used as otherwise the turpentine in the polish will 'lift' the stain.

To make wax polish shred beeswax into a container standing in hot water. (Never heat directly over a naked flame.) Add turpentine and mix until like soft butter. For light polish use bleached beeswax; for normal polish, unbleached beeswax. This polish is rather soft, but it can be hardened by adding 1 part carnauba or stearine wax to 4 parts beeswax, or 1 part powdered rosin to 6 parts beeswax. The latter darkens the polish and should not be used on light wood.

Apply with a stiff shoe-brush, scrubbing well into the grain. No shine can be obtained until the turpentine has evaporated, so set the work aside for at least 48 hours. Burnish with a clean shoe-brush and soft fluffless rag. Small carvings are polished by rubbing a toothbrush on a lump of beeswax, scrubbing it into the grain and burnishing with another brush. Several applications will probably be needed to build up a good surface. When obtained it can be maintained by regular applications of proprietary wax polish or furniture cream.

French polish consists of a solution of shellac dissolved in methylated spirits and is applied to the surface with a pad of wadding covered with linen. The sequence of processes is quite straightforward, but each stage must be correctly performed to obtain a satisfactory result. It is therefore essential that these processes are studied and thoroughly understood before beginning. A number of books which quote details of the work are on the market and one of these should be consulted.

An existing french polished surface needing more than cleaning can, however, be revived with a coating of button polish. This is a particular grade of french polish, and providing the work does not require stripping, it can be done by the average handyman. Cut a 6in. square of cotton wool, wring out in polish, flatten out, and lay aside to dry. This 'seals' the loose hairs. Soften with a few drops of methylated spirit, fold in half, then in three as though it were a sheet of letter paper. Next fold the corners to form a pear-shaped 'rubber'

(Fig. 47), and pour on just sufficient polish to moisten the wadding, so that when the wadding is lightly squeezed, the polish will exude but not drip. Fold the rubber in a piece of old handkerchief or linen well washed out, and put just a spot of linseed oil on the face. Work in a dust-free room, facing the light, and move the rubber straight up and down the grain, using a light pressure and covering evenly all over. Re-charge as required. Repeat the process using the same rubber but with a fresh cloth covering and without using oil. It will collect the oil put on in the previous operation and bring the surface to a bright gloss. Leave the work for at least 24 hours to harden before putting it into use.

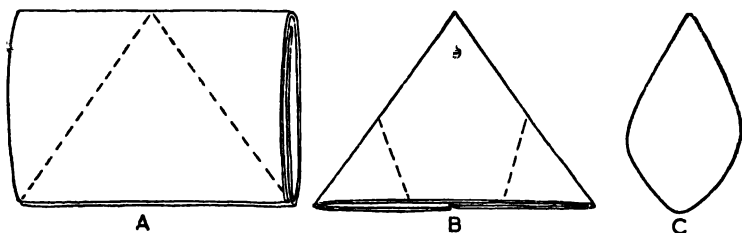


Fig. 47. Making a pad for applying a coat of 'button' polish

Weathered Oak reproduces the attractive greyish tone with dark rays, to which oak 'weathers' after centuries. Three solutions are needed. Make up sufficient of each for the job in hand as follows:

Potash solution: Dissolve 2oz. American potash in 1 pint boiling water. Use when cold.

Chloride of Lime solution: Dissolve 4oz. Chloride of Lime in 1 pint warm water. Strain to remove sediment.

Beeswax-Turpentine mixture: Shred 4oz. pure beeswax into a vessel containing 1 pint turpentine and stand in a pan of hot water. Stir until dissolved and allow to cool.

Wearing rubber gloves, liberally wash the oak with the potash solution, letting it remain for about 15 minutes, by which time the wood should be a medium brown colour. Thoroughly wash off with cold water, wipe down, and allow to dry. Apply the chloride of lime solution with a stiff brush, scrubbing well into the grain. Allow to dry, and repeat if the colour has not sufficiently changed. The whole job will now be covered with a white deposit which is removed with glasspaper and a stiff scrubbing brush. Well rub in the beeswax-turpentine mixture and burnish with a stiff brush. Finish by 'scrubbing' over the job with coarse canvas to give a final sheen.

Limed Oak. The groundwork is left natural or stained in various colours whilst the grain is filled with a white filler. Wax or whiting fillers can be used.

With a *wax filler*, shred bleached beeswax into a vessel standing in a pan of hot water. Add turpentine, stir until the wax is dissolved, then add powdered zinc white until the mixture is opaque white. If required, colour the wood with spirit stain, and give a coat of french polish to seal the stain. Work evenly, straight up and down the grain, and on no account use oil on the polish rubber. Allow the polish to dry, and then smooth down with worn grade O glasspaper. Apply the filler on a coarse rag, rubbing *across* the grain until it is filled. Wipe off surplus filler and allow to stand for 24 hours. Burnish with a dry cloth. This produces an eggshell gloss, which can be revived at any time by re-waxing as described. It leaves a characteristic whitish film over the wood, caused by the zinc white in the wax.

Alternatively, for a whiting filler, mix household whiting and water to a stiff paste and rub it in with a rag, working across the grain after having coloured and french-polished as before. Allow 24 hours to harden; then go over the surface with fine glasspaper, used lightly and with the grain, to remove the whitish film over the work. Next give one coat of white french polish to fix the filler and give a gloss. Use as little polish as possible so that it does not unduly colour the fillings. Allow to dry and repeat the polish coat. A dull gloss will be produced, which can be improved by applying furniture cream or light wax polish in the usual way.

Paint or Enamel. To secure a good finish absolute cleanliness throughout the job is essential. Dust down the work well before beginning to paint, in order to let the atmosphere clear itself. Work in a well-ventilated room free from draughts. Oil paints dry chiefly by oxidation, which may easily be retarded by a stagnant atmosphere.

Smooth with glasspaper and dust off the surface, first filling large cracks with plastic wood. Unless properly treated, knots may cause the paint film to crack or blister. Brush over small knots with 'patent knotting' or pure shellac dissolved in methylated spirit. Large knots are best bored out and the hole plugged with sound wood.

A ready mixed primer is used for the first coat and its purpose is to satisfy or seal the pores of the wood. An alternative frequently used nowadays is 'aluminium wood primer' (*not* the same as 'aluminium paint'). Paint with the grain for the first stroke, cross at right angles and finish with the grain once more. When finished, allow to dry and examine to see whether stopping is required. This is used for nails and screwholes, etc., a good stopping being 'white lead putty': a mixture of 3 parts putty to 1 part paste white lead. Force well home into the crevices, allow to dry (several hours), and then rub down lightly with glasspaper.

The next job is to apply an undercoat which is intended to give

opacity to the job. The colour should be similar to the finishing coat, but of a slightly different shade to ensure that no parts are missed when applying the finishing coat. Allow the undercoat to dry hard, then lightly rub down with glasspaper, and dust off.

The final coat is applied as evenly as possible and with only as much 'cross-brushing' as is necessary to spread the paint evenly. Do not use too much paint on the brush and work towards edges so that paint is not scraped off, to run down the wood. (See also PAINTING WOODWORK, p. 179.)

TO DECORATE FURNITURE

Use small artists' brushes and make sure that the paint or enamel is of the same type as used for the last coat. The latter, of course, must be absolutely dry. Many synthetic enamels, if applied over a cellulose or oil based enamel, will cause it to blister or 'run up' into a bubbly mass.

To clean various finishes—See CLEANING METHODS, p. 189.

TO REVIVE A WAX-POLISHED SURFACE

Apply on mutton cloth the following lotion: Shake together $\frac{1}{2}$ pint methylated spirit and 1 oz. camphor until dissolved. Add 10z. linseed oil, $\frac{1}{2}$ pint vinegar and $\frac{1}{2}$ oz. butter of antimony. Shake well before use. A simpler recipe is 1 part vinegar and 1 part linseed oil, well shaken together and used as before. Badly dirtied wax polish can be stripped down by scrubbing the way of the grain with turpentine, using a stiff brush. Wipe off with mutton cloth damped with turpentine and stand aside for 48 hours before re-waxing.

REVIVING FRENCH POLISHED FURNITURE

Make up a mixture of equal parts of vinegar, linseed oil and methylated spirits. Shake well before use and apply with soft fluffless rag. Badly dirtied parts are best treated in two or three operations, otherwise the methylated spirit may soften the polish too rapidly and allow it to lift with the rubbing operations.

TO STRIP FRENCH POLISH OR VARNISH

A fairly recently french-polished surface can be stripped by applying methylated spirit to soften the polish, and then scraping off. This is not effective for old, hard polish, when use one of the following treatments:

(a) Dissolve 1 lb. washing soda in 1 gallon hot water. Scrub on to the surface with a stiff brush. Allow to remain until polish is soft; then scrape off. Well wash down after treatment.

(b) Ammonia (0.880 strength). Scrub on with a brush to soften polish and varnish, then scrape off, and well wash down. It is advisable to wear rubber gloves when doing this, as the ammonia is painful to the skin.

Alternatively, use a proprietary brand of polish stripper. There are some kinds which, unlike the home-made strippers, do not darken the wood.

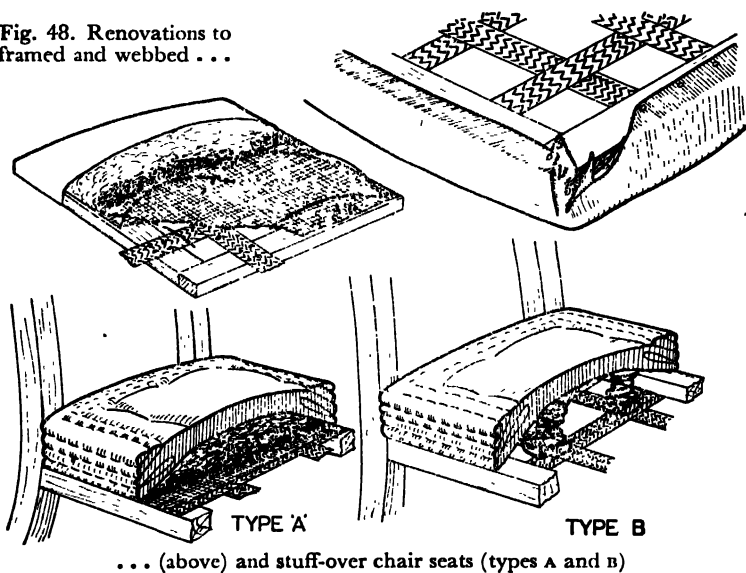
To strip paint, see PAINTING, p. 178.

Upholstery

TO RENOVATE LOOSE SEATS

THE commonest type of seat consists of a plywood base with a slab of upholstery wadding laid over it and covered with a tapestry or leathercloth cover tacked to the underside. To renovate, remove the old materials, replace the wadding and, if required, the top cover, and tack off as before.

Fig. 48. Renovations to framed and webbed . . .



Framed and webbed seats are renovated as shown in Fig. 48. Remove all the old materials and check that the joints are secure. Glue and cramp if necessary. Two or three webs each way are put on according to the size of the seat. Fix one end with four $\frac{1}{8}$ in. improved

upholstery tacks, stretch to the opposite side, passing over and under the other webs as shown, and strain down with a webbing strainer. Tack off with four tacks as shown, and cut off, leaving 1 in. overlap. Take a piece of hessian, turn down a $\frac{1}{2}$ in. wide edge, and fix along the back with $\frac{1}{2}$ in. improved tacks. Stretch across to the front, pulling as tightly as possible, and tack down through one thickness of hessian. Cut off to leave $\frac{3}{4}$ in. overlap, turn this back and tack off, at the same time turning over the free ends of the webbing and tacking these. Repeat with the two sides, pulling the hessian tight to remove wrinkles.

Run a series of large twine loops round and across the seat as shown. Tease out the old stuffing free of lumps or, better still, use new material and pack this under the loops, shaping up the contour as you go and keeping the stuffing on the top of the seat. The crown of the stuffing should be just in front of the centre of the seat. Cover with a piece of calico or hessian, fixing temporarily to the outside edges with tacks half-driven in. Release these tacks one or two at a time and re-tack underneath, so that the cover is gradually eased into place and all wrinkles smoothed out. To put on the top cover, start with the sides and then the front and back. The corner folds are shown in the illustration and should be as small and neat as possible. Last of all, cover the underside with black hessian turned under at the edges and tacked off all round. Essentially the same method is used for *box seat upholstery*.

Stuff-over seats. Two types are illustrated in Fig. 43. In type A, no springs are used and the webbing is tacked to the top of the framework. Primary causes of sagging are stretched webbing and the stuffing packing down. The cure is to strip the seat and re-upholster, a job which requires a fair amount of skill and accordingly best entrusted to a professional. A less drastic expedient is to remove the top cover and hessian, turn the chair upside-down, and let in a plywood panel having small fillets screwed to its edges. These are also screwed to the chair frame so that the panel supports the upholstery. A little extra stuffing may be needed to be stitched on to bring the seat up to contour, before the top hessian and top cover are replaced. This method is inferior to the professional one, but it gives a reasonably comfortable seat and can easily be done by the average handyman.

Type B seats employ springs and the webbing is tacked to the underside of the chair frame. Sagging may be caused by the springs coming loose or losing their tension, the webs stretching, or by a combination of both. Here again, extensive re-upholstering is best left to the professional. Where only the webbing has stretched or broken, repairs can be done at home. Reverse the chair and remove the old webbing. Compress the springs and restrain with loops of

string. Strain on new webbing, tacking off as shown, then cut the string ties to release the springs. Stitch the springs to the webbing using a semicircular upholstery needle and strong twine. Finally, replace the black hessian covering if originally employed.

TO RENOVATE A DIVAN BASE

THIS type of base is shown in cut-away view at Fig. 49. The usual causes of sagging are the breaking of lashings, the loosening or weakening of springs, and the general stretching of the top coverings.

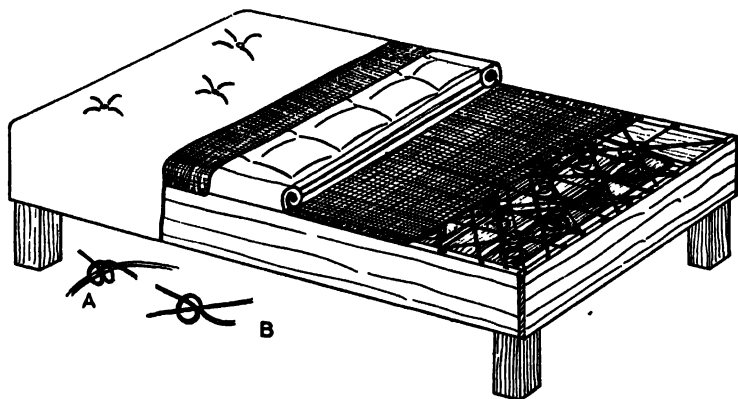


Fig. 49. Renovating a divan base

Remove the outer cover, the top hessian and wadding, which is sometimes omitted in the cheaper divans, and the bottom black hessian. Cut away the string lashings and prise out the staples or tacks securing the string ends to the divan sides. Examine the springs, re-staple to the seats where loose, and replace weak or distorted springs.

For the new lashings, use fairly stout, strong new string. Success depends upon really firm lashing, which helps to spread the weight over all the springs and prevents them slipping sideways. Start with the lengthwise strings, knotting the end and stapling to the divan. Run straight down over the tops of the springs, and at each point where it crosses the wire make a clove hitch (Fig. 49). This is a very strong method and lessens the chance of slackness if a string breaks. Finish by stapling the end to the divan side as before. Follow with the crosswise strings in the same manner and where these cross a string use the hitch (Fig. 49 B). Next put on diagonal strings in each direction with clove hitches where they cross the springs and insert hitches wherever they cross another string. Put back the heavy

canvas, tack off on to the top edges of the woodwork, then stitch the springs to the canvas as shown. The top should now be quite resilient yet firm. A strip of upholstery wadding (obtainable by the yard in rolls) is formed into a roll and stitched all round the edge of the divan, then the centre is filled in and secured with large stitches. Cover with hessian tacked off round the top edge, then replace the top cover, which is tacked off underneath the divan. The black hessian is put on last.

To 'dry-clean' and shampoo upholstery, see *CLEANING*, p. 190.

For care of leather upholstery, see *LEATHER GOODS*, p. 152.

Pianos

MINOR FAULTS IN UPRIGHT PIANOS

STICKING notes are the most common fault. To find the source of the trouble, the front of the piano must be opened up. Lift the top flap, when it will be seen that the front panel is held in position by hooks or buttons. These must be released and the panel, which is usually fixed by dowels at the bottom end, pulled forward from the body and upwards and outwards.

Lift out the 'fall', the part of the case covering the keys, by placing the hands on the back part which rests on two wooden slats or is slotted into the casework. Then pull upwards and out. Sometimes the fit is rather tight and considerable force is needed.

The trouble can now be diagnosed; it will usually be 'key' or 'action'.

HOW TO REMEDY 'KEY' FAULTS

If it has not already come away with the fall, remove the slip of wood at the back of the sharps (black notes). This is usually screwed or dowelled at either end. The sticking key can now be removed by lifting the front up and off the centre pin.

If the sticking is due to a foreign body, such as a coin, between the keys, it will now fall out, but the trouble may be due to a swollen bush, either at the centre or front pin. This should be very gently filed or, if it is unbushed, the hole made slightly larger and, if corroded, the pin cleaned. Be careful not to make the hole too large, otherwise the key will rattle.

DEALING WITH 'ACTION' TROUBLES

Here, the hammer remains in the forward position, the cause usually being damp swelling the front bush of the centre or corrosion of the pins.

There are two main parts to each note: (1) the lever directly above the end of the key, and (2) the hammer section. Both of these are separately mounted and either can give trouble. To remove the action, undo the buttons or knurled screws at each end of the action and perhaps at the centre, then tilt back at the top and pull upwards and out. Place about three feet in front of a fire and leave for about four hours. This may dry out the moisture. Test by replacing the action and trying the offending notes.

If this method is unsuccessful a spot of petrol can be applied to the centre pin by means of a matchstick pared down to a fine point. If this is insufficient the only effective way is re-centring, which must be done by a tuner.

Should there be a clicking when a note is struck it is either due to the felt becoming moth-eaten or worn away by much use. When renewing, always use the same thickness of felt. Clicking may also be caused by the hammer being loose on its shank or the shank loose in its hole. To test, see whether the hammer or shank can be moved. If so, pull out and reglue.

OTHER FAULTS

Should a string break, cut away both ends and remove. Fitting a new string is a job for a tuner, so send him a small section so that he may come prepared. If the pedal action squeaks, use black lead as a lubricant between the spring and the wedge. Metal pedal bearings need oil; coiled springs, petroleum jelly. Take up the lost motion by means of the screw on the rod connecting the actual pedal with the lever. Clean keys with a moistened rag, and, if greasy, a little spirit or grease-solvent. Yellowed ivories must be scraped or lightly sandpapered and then repolished.

Pianos, like most other musical instruments, go out of tune by reason of atmospheric changes, so an instrument should be kept in a room which is maintained at a fairly even temperature. On no account should tuning pins be turned by anything other than a proper tuning crank.

Rattling and jarring noises can be most distracting. The long hinge on the top flap is often the culprit. To test, open the lid and press the fingers against the hinge. If there is an improvement, lightly tap the metal rod with a small hammer in several places. The panels on both top and bottom panels may be tested by pressing the hand against them. If this cures the trouble, wedge small pieces of felt

between the panel and its interior beading. Coins dropped between the keys will often rattle on the key bed. These can be located with the aid of a torch if two or three keys at intervals along the keyboard are removed.

Old wooden pedals usually have circular brass caps which may become loose on their screws. Tighten these, or if the slot is badly worn by constant use, insert a piece of thin felt between the brass cap and the wood. To prevent china and glass ornaments and shades being set in vibration by certain notes and chords, place sand or earth in the ornaments and a felt washer at the point of fixing of the shades.

Floor Coverings

GENERAL CARE OF CARPETS

NEW carpets should be not vacuum-cleaned for some weeks until the fibres have become slightly matted. Keep carpets as free from dust as possible because the grit cuts the pile and causes quicker wear. If you have no vacuum-cleaner, sprinkle with washed tea-leaves and sweep with a fairly stiff brush. Occasionally shampoo with carpet soap or detergent solution. Work with a circular motion over a small area at a time, 'rinse' with the cloth wrung out in clean water, and finish by rubbing the carpet with a dry cloth, the way of the pile. This treatment freshens the colour.

LAYING THE CARPET

Underlays prolong a carpet's life. They give a softer tread and prevent gritty dust from under the floorboards getting into the carpet. If buying a new carpet choose preferably underfelt, a spongy rubber or, failing that, special thick moth-proof paper. An old carpet or layers of newspaper or brown paper will substitute. (See also CHOOSING FLOOR COVERINGS, p. 72). The underlay must be laid perfectly flat. Felt should not be stretched or wrinkled. Lay papers sheet by sheet, overlapping until the required thickness covers the floor.

When the underlay is down, fold the carpet sides to middle across the seams. Lay it in the centre of the floor and unroll so that the underlay is not disturbed. When spread out, work out creases from the centre outwards. If you wear crepe rubber-soled shoes you will find it easier to pull the carpet taut.

REPAIRING CARPETS

A frayed edge. Pull away all loose tufts and straighten the edge.

Turn the carpet in and tack down with a herringbone stitch. Place braid over this hem and stitch both edges of the braid to the carpet. Mitre the corners. For fibre matting, buy a wide braid, fold it over the cut edge and 'stab'-stitch through with strong carpet thread.

To patch. Cut away the damaged edges so that each cut runs along a thread. Pick out the pile for an inch round the hole. A finger of threads will remain. Tie the threads into small bundles, turn them back, and sew to the back of the carpet. Cut the patch two inches larger than the hole, making sure the pile is the same way as that on the carpet. Pick out the pile on the patch until it exactly fits the hole and prepare it in the same way. Replace the patch in position and over-stitch the edges of the carpet and patch together.

To remake. Carpets made from strips joined together can be rearranged. Carefully unpick and loosely oversew selvages together in new arrangement. If there are raw edges, they must first be neatened. Unravel for about an inch. Divide the loose threads into bundles and tie them. Back-stitch them down to the back of the carpet. Then oversew with the right sides of the carpet together.

To join with adhesives. A special type of strong adhesive will join cut edges of carpets. It is smeared on carpet binding and stuck down. Each tube carries full instructions.

CARE OF LINOLEUM

New 'lino', especially cork, should be polished immediately, before it has a chance to become dirty. Apply a good wax polish with a clean duster, leave for a little to dry, then rub up. At first linoleum will absorb a lot of polish, but when the pores are filled and the surface sealed (a wood seal is sometimes used), only a little will be necessary. Scrubbing roughens the surface, which will then tend to hold dirt. Dampness, alkaline substances, and great heat all damage linoleum. It should therefore be washed (never scrubbed) as infrequently as possible. Use warm water and a detergent or soap applied sparingly, and a soft flannel. Rinse off, and mop up excessive water, especially at joints. Change water as soon as it becomes dirty. Linoleum kept well polished is resistant to dirt, but polish should be used sparingly, so that it never becomes smeary. Spilt liquids should be mopped up at once.

TO LAY LINOLEUM

Measure carefully before laying, and lay, if possible, across the run of the planks. If the wall is straight, laying is simple; but fireplaces and recesses must be carefully marked. Lay the strip of linoleum on the floor parallel to the irregular wall. Using a measure

and a thick pencil, make an exact copy of the wall outline on the linoleum. Check all measurements carefully, and when quite sure it will fit precisely, cut with a special curved knife. Fit neatly at corners. (*Note*: If recess goes back 6 ins., and the fireplace protrudes 12 ins., remember to mark fireplace cut-out 18 in. from the edge of the linoleum.) After laying, allow to settle, weighting obstinate bulges. This may take several weeks. Trim to fit where necessary and fix down with wire brads or adhesive. A waterproof adhesive is advised for surrounds of sinks, baths, or anywhere that is likely to be frequently damp.

A *felt underlay* (preferable of a bitumenised or water-proof type in kitchens and bathrooms) reduces noise, makes a soft tread, and, if properly laid, prolongs the life of the linoleum. Brown paper or newspaper are useful substitutes.

CARE OF CORK FLOORING

Both cork tiles and carpeting need 'sealing', otherwise dirt penetrates easily. Some cork tiles are sealed before being laid. Otherwise as soon as laid, apply linseed oil, rub well in and leave for about ten days. Then wax polish regularly. Wax polish alone can be used as a filler, but unless applied carefully in several layers, an uneven finish may result.

(See also CHOOSING FLOOR COVERINGS, p. 72)

China and Glass

TO REPAIR CHINA AND POTTERY

USE waterproof china cement. Broken edges must be quite clean and slightly rough. Scrape old breaks with a pen-knife, wash in soapy water, rinse, and dry off thoroughly in a warm oven. While the article is still warm, smear both broken edges lightly with the cement. When tacky, press together, and remove any surplus cement. If the edges have been smeared lightly, there should be scarcely any surplus. Hold tightly in position with tape, or rubber bands. Leave for twenty-four hours. If the article is broken in more than two pieces, allow one join to set before starting the next (i.e. twenty-four-hour intervals between handling it).

For glass, follow the same method, but use a transparent plastic cement.

If possible, clean mended china and glass by wiping with a damp cloth rather than immersion, even although waterproof cement has been used.

TO REMOVE TANNIN STAINS

The stains left in tea pots or in cups where no milk is used can be softened by soaking for some hours in warm water and soda. They can then be rubbed off. Do not use anything coarser than fine whitening, or, on glass, household salt, as this will roughen the glaze and make subsequent staining worse. Another method is to fill the article with warm water and add a few drops of household bleach.

TO WASH CHINA

For valuable china use a *papier mache* or plastic bowl to reduce the risk of chipping, or put folded tea towels in the bottom of the sink or basin. Detergent, in liquid or powder form, is especially good for china and glass. Rinse afterwards in clear water. Never use soda with gilded china. Use a soft nailbrush to get into crevices when washing china ornaments.

CARE OF GLASS

Glass is a poor conductor of heat, and unless it is very thin it cannot stand extreme changes of temperature. For this reason, hot glass (from oven, etc.) should never be put down on a cold metal surface, or have cold water added, nor should hot liquids be poured into cold glass. A metal spoon standing in the glass usually prevents breakage.

Wash glass in warm water and detergent. Soak stained oven-glass in cold water and remove stains with salt and lemon-juice, or with fine steel wool. For the best polish, dry the glasses while still warm with a lintless cloth—old table napkins are good. If bottles or decanters, which cannot be wiped inside, are washed in sudsy water, rinse in cold water before draining to prevent smears.

Tumblers and drinking glasses should not be stacked, but stood separately, upside down on a shelf.

Discoloured decanters will probably clear with detergent. If not, try adding some clean tea-leaves and shaking well. Coarse salt shaken inside will act as an abrasive. If the stain is an alkaline deposit from hard water, a little vinegar and water shaken in the carafe may clear it.

To replace a broken window pane, see **WINDOWS**, p. 108.

Cutlery, Table Silver and Plate

GENERAL CARE

Table silver. To keep it bright in daily use, wash in hot sudsy water (keeping the handles of the knives out) and rinse in hot water. Dry while still hot and finish off by rubbing with a chamois leather or impregnated cloth. Silver that is stained or tarnished, whether from egg or other sulphur-containing foods, or from a foggy atmosphere, can be safely cleaned by the chemical solution method. Place the silver either in an old aluminium basin or saucepan or in a basin containing a piece of aluminium bought for the purpose, or an old aluminium lid. Silver and aluminium must be in contact. Cover with very hot water in which washing soda has been dissolved (1 ounce in 4 pints) and leave for ten minutes or more. Rinse, dry, and finish off with an impregnated cloth or a soft duster. Alternatively, use a silver 'dip' cleanser according to instructions.

If a silver polish is preferred, choose the jeweller's rouge or a good quality commercial polish. A home-made polish can be made from finely precipitated chalk moistened with equal parts of ammonia and water, or with sal volatile.

Decorative silver. Wash in warm sudsy water to which a little ammonia has been added. Polish as for table silver, using a medium stiff brush to remove rouge or paste from interstices.

If the article is all metal, the best method of cleaning is in the soda and aluminium solution. This does not harm silver and avoids even the slight wear of the mild abrasive action of polish.

Dust and soil which collects in filigree work should be removed with a medium stiff brush (e.g. an old toothbrush).

Steel kitchen knives and non-stainless table knives should be cleaned by rubbing on a knife-board or in a machine, with a little knife polish. Obstinate stains can be removed by rubbing with a cut potato or a cork dipped in whitening.

Copper. Apply finely-powdered bath-brick, moistened with sweet oil or paraffin, with one cloth, and rub up with another. This will remain free of tarnish for longer than when a commercial polish is used. Lemon juice and salt will remove obstinate stains. Rinse well immediately, or the acid will start more tarnish. Dry and rub up.

Brass. As for copper. If a pattern is indented, use a brush to dislodge polish from crevices. A quick and effective way of brightening brass is to rub it with a cut lemon. Then rinse thoroughly, dry, and rub up with a soft cloth. If very badly tarnished, the lemon juice and

salt treatment may have to be repeated. An alternative is weak oxalic acid, but this is poisonous and must be used with care.

Lacquered metals. They should not be cleaned with metal polish as this is slightly abrasive. Dust carefully, and from time to time apply a little sweet oil or furniture cream.

Bronze. This is not normally polished. Dust with a soft duster and brush. Occasionally rub in a little sweet oil and finish with a soft cloth.

Pewter. As pewter is usually preferred dull it is cleaned by washing in hot soapy water and rubbed up, but it may be burnished with whitening if desired. If it has been neglected, dissolve $\frac{1}{2}$ oz. soft soap in $\frac{1}{2}$ pint water. When cool, pour into a bottle containing two oz. of rottenstone or bathbrick. Add 4 tablespoonsful of turpentine. Shake well. Apply this mixture, and leave for twenty-four hours. Then wash and polish.

Japanned trays. Wash and polish with furniture cream.

LACQUERING

The discolouration of brass and copper articles may be prevented by coating the work with a clear cellulose lacquer. Old metalwork is first cleaned with metal polish and then with clean rag moistened with methylated spirit. All surfaces and brushes must be cleaned and dry before lacquering, one coat being sufficient. Work in a dry atmosphere and avoid breathing on surface about to be lacquered.

Leather Goods

LEATHER UPHOLSTERY

Dust carefully, especially round bottoms and crevices. If lightly soiled, sponge with warm soapy water. If morocco leather is dirty, rub with a mixture of 2 parts linseed oil to 1 part vinegar. Hide should be sponged with a teaspoonful of ammonia and 4 teaspoonsful of vinegar in two pints of cold water. Then rub well with a little castor oil.

Leather suites can be kept in good condition by occasionally polishing with the appropriately coloured shoe cream, or with a little furniture cream.

LEATHER SUITCASES

Wipe the inside with a damp cloth. Clean lining with carbon tetrachloride (do not inhale fumes). If lining shows signs of pulling away, stick it down with a strong adhesive. If the leather corners

are becoming unstitched, sew with gut obtainable ready wired at a cobbler's. Wash leather with saddle-soap. Allow to dry and polish with shoe polish or furniture cream.

Sewing Machines

GENERAL CARE

A MACHINE in regular and careful use gives little trouble. It should be oiled frequently with a small quantity of fine mineral oil, care being taken that all the oil-holes receive attention.

*If the machine has been out of use for some time, or if it is running a little stiffly, the underneath mechanism should be cleaned. Thoroughly clear all fibres, dust, and grit away from the shuttle race with a rag on the end of a sharp implement. Turn back the machine and wipe the connecting bars and other exposed parts with a rag soaked in paraffin. If the machine has been very neglected use a stiff brush dipped in paraffin to get into difficult corners. Run the machine fast. Wipe up all the paraffin with a clean rag, and then oil the whole machine well.

The tension must be adjusted very carefully as it is on this that success mainly depends. But before altering any tension screws, make sure that the machine is threaded correctly in both upper and lower threads. The slightest mistake will put the tension wrong. The tension adjustments vary slightly with different models, and each maker issues a book of instruction which should be followed carefully.

To test which tension is wrong, lower the foot, grasp the upper thread just above the needle, and pull. Then pull the lower thread from the bobbin. The thread ought to pull steadily, and not break. If it comes away too easily, or is very tight, the tension should be corrected. If the thread keeps breaking, check that: the machine is correctly threaded, and that the bobbin is in properly; the needle is properly set and not bent; the thread is the right thickness for the needle; that neither tension is too tight; that the seating and spring of the bobbin are not clogged with fluff.

Soft Furnishings

TO DRY-CLEAN HEAVY CURTAINS

Brush them down gently or go over them with the upholstery

attachment of the vacuum cleaner, taking care that hooks are not sucked into the cleaner. To dry-clean upholstery, see **CLEANING UPHOLSTERED FURNITURE**, p. 189.

TO WASH LIGHT CURTAINS

As sunshine weakens material, treat very gently; do not rub or twist. If very fragile, put in a muslin bag before immersing. (See also **LAUNDRY WORK**, p. 194) Dry by folding in half over the line, pulling gently into shape. Iron selvedge and hems first, then iron diagonally to avoid pulling out of shape.

TO MAKE CURTAINS

Curtains should be lined if possible. As well as improving appearance and 'hang', lining lengthens their life by preventing fading and protecting the fabric from dust. Shiny sateen makes an ideal lining, being close in texture and dust-repellent. Today the ideal may not be possible, but it is better that curtains should be lined with something—cheap unbleached sheets or old self-coloured curtains rather than not at all.

Half as much again as the width of the window is the least to allow for reasonable fullness and where possible double fullness is more satisfactory, especially where you have to allow for a 6-in. overlap. Casement curtains should just touch the sill or hang 6 in. below; long curtains just clear the floor. Cut the material the required length, allowing 3-4 in. for the heading and 2 in. for the hem. Machine the widths together. Turn in 1 in. down the outside edges and slip-stitch. Turn up 2 in. for the hem, and mitre the corners. Turn over a 3-4 in. heading and stitch a curtain gathering tape over the raw edges. This tape has special pockets to take hooks or rings and two rows of gathering string to adjust the fullness. Allow 2 in. tape each side, but cut away this tape after pulling out the strings.

If the curtains are to be lined, make up as for unlined curtains until the stage of sewing on the gathering tape. Prepare the lining in a similar way, but making $\frac{1}{2}$ in. smaller all round except at the top, which should be 6 in. short. Thus when the 3 in. heading is turned over, the rough edges of the curtain and lining will come together. Stitch the gathering tape over the two rough edges, and then slip-stitch the two side edges together. Curtains hang better if the lower edges of the front material and lining are not sewn together.

If the curtains are very large or heavy, it may be necessary to tack the lining to the curtains. Before the tape is stitched on, lay the curtain out flat with the lining in position. Fold the lining back lengthwise at exactly the middle, and slip-stitch the two together,

making the stitches very small back-stitches about 4 in. apart. Make two more rows of such stitches, each one half-way between the edge of the curtain and the centre.

A PELMET, VALANCE, OR SWAG DRAPERY

All these serve the same purpose, namely to 'finish' the top of the window and hide the curtain rod and heading. A pelmet is shaped and fits smoothly. It may be made either of stiffened fabric to match or contrast with the curtains, or of painted plywood, plaster-board, etc. A valance is made of the same material as the curtains and is either frilled or box-pleated. Swag draperies are lengths of material looped or draped in graceful folds, and usually look best in formal or Regency period rooms. They may be run through swag rings attached by brackets to the wall above the windows or they may be draped over thick rods. (See Fig. 50 *a, b, c, d*, p. 156)

TO MAKE A FABRIC PELMET

pelmet material and lining the same shape but 1 in. bigger all round. Lay the material face down on table or floor, place the foundation in position, turn over the edges of the material, and glue down. Place the lining on top, turn in the edges, and slip-stitch the two materials neatly together. Adorn sparingly with braid or gimp, if required. Stitch a piece of strong 1 in. tape to the top edge of the pelmet, and tack this tape up to the pelmet board, or alternatively use pocketed gathering tape. (See TO HANG CURTAINS, PELMETS, ETC., p. 157)

TO MAKE A VALANCE

Join up a straight strip of the material, $1\frac{1}{2}$ times the finished length for a gathered valance and twice the length for a pleated one. Usual finished depth is 8 in. (See also STYLE IN CURTAINS, p. 70) Hem the lower edge. Turn over the top and stitch a gathering tape over the raw edge. Pull up the thread and arrange the gathers evenly. With a pleated valance, measure each box-pleat and tack in position. Then stitch each pleat down. Alternatively, finish with pocketed gathering tape. (See TO HANG CURTAINS, PELMETS, ETC., p. 157)

SWAG DRAPERIES

The easiest method of making a simple type is to pull a straight lined strip of material through the rings. (Fig. 50 *a*.) Alternatively knot triangular pieces to a valance curtain pole (Fig. 50 *b*.) arrange

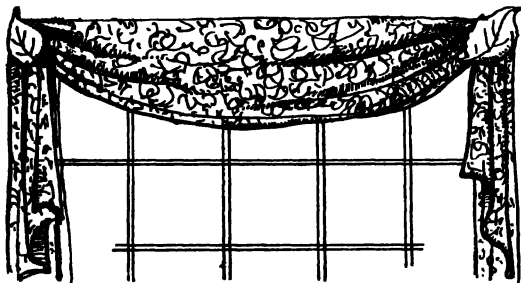
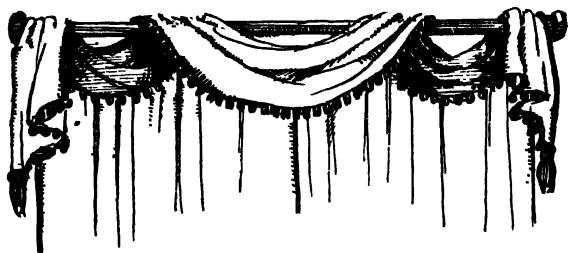
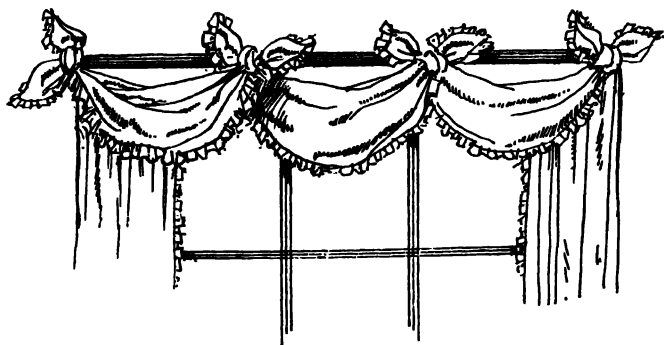
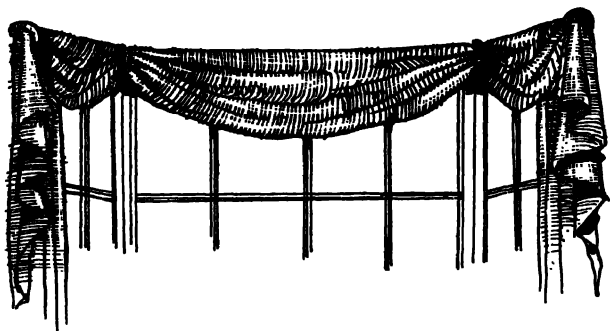


Fig. 50. Different styles of swag drapery

the swag over the pole (Fig. 50 *c*), or loop a length through ornamental corner pieces (Fig. 50 *d*). In fact, drape just as you please; then, when arranged to your satisfaction, sew the folds firmly in place with strong thread. The lining must come very neatly to the edge, especially if the ends of the swag are to be cut diagonally.

TO HANG CURTAINS, PELMETS, ETC.

A popular method is to fix a wooden plank (4-6 in. wide) on brackets at the top of the window. This plank carries the curtain rail while the pelmet is tacked to the edge of the board. If the curtain rail is supported on brackets (various proprietary makes), larger brackets will take the pelmet.

MAKING LOOSE COVERS

First take a paper pattern of the chair. Using large sheets of paper, lay a fold of it down the middle of the chair. Put it in position and cut off by the seams of the upholstery. Cut the pieces in this order: (1) inner back; (2) outer back; (3) seat; (4) arm (three pieces, one from the seat over stuffed edge to seam, one from lower edge of chair to seam and one for front of arm); (5) straight band in front of seat.

From these pieces calculate the amount of material necessary. Remember that 6 ins. extra must be left on all seams that 'tuck in' round the seat and $1\frac{1}{2}$ in. on all other seams. If the pattern of the material is large, allow an extra yard. Allow another yard for cross-way piping strips. If a frill is required, measure round the base of the chair, and calculate that you will need a piece 7 in. in width, one and a half times this length. When calculating, remember that some of the smaller pieces may be cut from the 'cuttings'. An average-sized chair takes about $5\frac{1}{2}$ yards of 48 in. material.

Lay the paper patterns on the material, remembering to allow for the necessary 'tuck-ins'. Remember, too, that the arm pieces must be reversed when cutting the second arm, that the pattern should be disposed as nicely as possible and matched on arm fronts, etc., and that if the pattern is 'up and down' it is never upside-down.

After cutting, pin the pieces inside-out on the chair for fitting. Do not stretch or strain and allow a slight looseness for the inevitable shrinkage. Pin darts on any rounded parts to help the fitting. Prepare piping. Cut cross-way strips and join up. Boil piping cord to shrink it—do not use too thick a cord—and tack cord inside strips. Remove the cover from the chair, carefully unpin seams, insert piping cord, taking care to replace pinning exactly, and stitch. Insert a zip-fastener, or make a placket at one side of the back.

TO IRON LOOSE COVERS

Iron frills and as much of the 'body' as possible in the usual way, then finish off awkward corners after the cover has been replaced.

WASHING CHINTZ COVERS

This glazed material used to be difficult to launder at home because special irons were required to restore the gloss. Most modern chintzes, however, have a special permanent glaze and are easily laundered in the usual way. (See LAUNDRY WORK, p. 195)

TO WASH DOWN QUILTS

Squeeze in plenty of warm soapy water until clean. Several waters will probably be necessary. Rinse in several warm waters. Squeeze out surplus water, or put the eiderdown through a rubber-rollered wringer. Shake well. Dry by placing over two parallel lines a foot or two apart so that the air gets all round. Shake often during drying to prevent the down from 'clumping'.

Iron lightly while the quilt is still damp, and air very thoroughly.

FABRIC - PAINTING

This is usually limited to stencilling or to printing with wood blocks to produce simple borders and pattern units upon cotton, linen, and similar materials. Since the colours must be washable, it is advisable to use artists' oil colours thinned for use with quick-drying goldsize. (See STENCILLING, p. 181)

Radio, Television, Gramophones

THE VARIOUS TYPES OF RADIO RECEIVER

(1) Battery set employing a wet accumulator; (2) Battery set using only dry batteries; (3) the AC/DC or 'Universal' type of receiver; (4) the AC mains-only models.

(1) In this type of set the majority of troubles, crackles, etc, and even complete failure are caused by dirty battery terminals. Remove with emery paper any green corrosion that may have appeared and then smear lightly with vaseline to restrict further corrosion.

Take care not to mix up the terminals. Wander plugs, correctly coloured, must be used for the high-tension battery leads, and spade ends for the accumulators. Never use bare wires, which may be confused with damaging effect on the valves.

A grid-bias battery may be employed in this type of receiver, and although a negligible drain of current is placed on such a battery it will nevertheless deteriorate in time. This not only causes distortion but increases the HT consumption. To offset this, it is a good policy, when buying a new HT battery, to take the grid bias battery for testing at the same time or replace it every twelve months.

(2) This type includes portable and 'personal' receivers with miniature valves having a very low current consumption. Such a set may have a frame aerial, in which case there is a directive effect and the set should be rotated to obtain optimum results. Failure will not necessarily be due to exhaustion of batteries; one of the components may be at fault.

Replacing batteries is straightforward, as quite different connectors are used for HT and LT. Where a combined battery is employed, be careful not to force in the 4-pin plug incorrectly.

(3) The AC/DC mains receiver is usually a midget or smaller type of set, although there are now some larger models and radio-grams. The set does not contain a power transformer and the voltage for the mains heaters are stepped down or wasted away by means of a resistance. This resistance may be inside the receiver, or the lead to the mains plug may incorporate the resistive element. Do not worry if, in the latter case, this lead becomes warm. As there is a direct connection between the chassis of this type of receiver and the mains it is essential that no earth lead from, say, a water-pipe should be taken direct to the chassis. If you receive a slight electric shock on touching exposed parts of the receiver, try reversing the mains plug.

(4) Most console and table models are of the AC mains-only type. The voltages are developed via a transformer, which has the advantage of isolating the receiver from the mains supply, thus eliminating mains-borne crackles or noise.

VOLTMETERS. (See *HOW TO DIAGNOSE RADIO FAULTS*, p. 160)

A small moving-iron type of voltmeter with a scale of 0 to 300 is inexpensive but a great help in making simple tests with any type of receiver.

RADIO AERIALS

With the older receivers a good aerial was essential. With modern sets containing high-gain valves a lengthy aerial is quite unnecessary

and even a disadvantage if you live within five miles of the transmitter. In the latter case it is a good plan to insert a switch in the aerial lead so that when the local station is being received this may be put in the 'off' position, thus using only the short length of wire from the switch to the set as an aerial. When long-distance stations are required the whole aerial is brought into use by putting down the switch.

Never dispense with an aerial. Except in the case of receivers fitted with frame aerials, a few feet of wire placed round the room will generally suffice.

HOW TO DIAGNOSE RADIO FAULTS

Remove the cover. In some sets this is detachable; but in others the knobs must be removed first. These are usually secured by grub screws, and the chassis fastened by bolts. Often the loudspeaker is fixed to the case. When removing the chassis, take care that the wires are not snapped. If they are too short, unsolder at the speaker end. Before this is done label the wires, so that they can be fastened back to the right connections.

1. *Battery Set Employing a Wet Accumulator*

NO SIGNAL	DISTORTED SIGNAL	SIGNAL PLUS DISTORTION
Check all batteries on correct range of voltmeter. Renew where necessary.	Check grid bias battery; voltage may be too low. Have valve tested for failing emission (local dealer).	High-pitched whistle may be due to tuning condenser having worked loose on the chassis. Tighten bolts. Speaker may have dirty air-gap. Remove the cone and moving coil assembly and wipe the gap with a piece of cloth wound round a thin stick. Coil must be carefully centred in the air-gap. Slacken the centring screw and allow coil to take up its own position. Push the cone at diametrically opposite points to see that it does not come into contact with sides of air-gap.

2. All Dry and Personal Receivers

NO SIGNAL	DISTORTED SIGNAL	SIGNAL PLUS DISTORTION
Check batteries and re-new where necessary.	As the components of these sets are usually very crowded, it is wise to hand your set in to the radio-service man.	A persistent 'ringing' or a note that builds up slowly and becomes very weak is often due to a valve becoming 'micro-phonic'. Test by tapping each valve in turn, and when the faulty one is found, replace. Alternatively, try mounting the chassis on spongy rubber, if this is possible.

3. AC/DC Receivers

NO SIGNAL.	DISTORTED SIGNAL	SIGNAL PLUS DISTORTION
<p>Observe whether the valves are alight. In these sets, the failure of any valve or dial light will break the circuit of all the others. Try replacing the dial lamp first and if this does not answer, take out the valves after marking their positions on the chassis and get them tested.</p> <p>If there is a linecord resistance see that the connections are firm, particularly at the adaptor or plug end.</p> <p>Check the fuses.</p>	Get the local dealer to test the valves for low emission. First mark carefully the position of each valve in the set. Label the valves and mark the chassis.	<p>Hum may be cured by placing 0.01 capacitor (condenser) across the mains, or from the 'live' side to the chassis. This capacitor should be able to stand up to at least 500 volts.</p> <p>In some midget sets the heat causes the speaker cone to expand and the assembly may rattle or chatter.</p>

4. AC only Receivers

NO SIGNAL	DISTORTED SIGNAL	SIGNAL PLUS DISTORTION
Observe whether any valve is not heating up. If not, take out and renew. Check fuses, if any.	Most of these troubles can only be put right by a radio-serviceman. Give particulars of symptoms.	Both a continuous 'plop plop', known as 'motor-boating', or a bad mains hum should be <i>quickly</i> dealt with by a radio-serviceman. Give particulars when informing him.

TELEVISION**AERIALS**

Location of the receiver and the distance from the transmitter must be considered. Within five miles of the transmitter many liberties may be taken. The standard length array is not necessary and the aerial may be fitted conveniently into a loft. Compressed dipoles and inverted-V aerials are now on the market to suit these conditions. Between five and fifteen miles it will probably be found better to use an external aerial. Whether or not it takes the form of a simple dipole or dipole with reflectors (the letter-H type) will depend upon the height of the site and the local noise level (proximity to main roads, industrial premises, hospitals, etc.). Beyond these distances the letter-H type becomes essential and the height of the aerial plays an increasing importance in the quality of reception.

More elaborate arrays consisting basically of the letter-H type aerial, but with additional elements, are now available. In 'fringe' areas this array is capable of making a poor picture worthwhile. All these aerials are carefully designed, the length of the elements being most critical to the frequency on which the station is transmitting. Thus the aerial is suitable for one transmitter only.

The lead between aerial and receiver may be coaxial cable or twin feeder. In the first case, the outer braid of the coaxial joins the lower limb of the dipole and the wire the upper limb. The remaining elements of complex arrays are reflectors, to which no connection is necessary. Similarly, if a twin feeder is employed, one wire joins the lower and the other the upper limb.

With all arrays other than the simple dipole it is essential to turn the aerial round until optimum results are obtained. If the set is sited near a major road it may improve reception to allow the aerial to 'look away' from the road rather than towards the transmitter.

RADIOGRAMS AND GRAMOPHONES

Distortion on record reproduction will in all probability be due to the pickup, perishing of the rubber on which the armature is mounted being the most usual cause. Try replacing with bicycle valve rubber; it will suit most types of pickup.

Crystal pickups, once broken, cannot be repaired.

SPRING-DRIVEN MOTORS

If the speed of rotation of the turntable is uneven, the pitch of the music will rise and fall; this is most marked when long sustained notes occur. Possible cause is that the system of the motor requires lubrication. Use light oil on the bearings and motor grease or petroleum jelly on worms, winding gear, and ratchet.

Clean the governor disc against which the friction pad presses with a cloth lightly damped with petrol, and the pad itself with a drop of clean light oil. If this pad is hard it needs renewing.

See that the turntable fits tightly on the spindle. To check the speed lay a strip of paper on the turntable so as to project over the edge; then place a record on top of this and start playing. Count the revolutions of the strip of paper for a minute, using the second hand of a watch or clock. The speed indicator can then be adjusted or marks made on the indicator to show the correct speed. Alternatively, test with a stroboscopic speed tester placed on the turntable spindle. The cardboard 'strokes' cost only 3d. The black segments will appear to be stationary when the speed is 78 revolutions per minute.

It should be noted that the frequency of the mains tends to alter during peak hours. Electric motors need little attention and it is wise not to apply oil unless a squeak develops and then only to the bearing that is at fault.

A gramophone should always be kept level. Any departure from this may cause excessive wear on the records, due to side pressure in the needle grooves, as, contrary to general belief, the actual sound tracks are on the side of the groove, not at the bottom.

Varying pitch and a wailing or tremolo comes from 'swingers'—records with slightly eccentric centre holes. To cure this, place a piece of thin material over the spindle and force on the record *lightly*. A centring device is now marketed.

To flatten a warped record, rotate it in front of a fire so that both sides are gently heated. Then place the record between two sheets of glass or very strong cardboard, previously French-chalked, and weight down.



Equipping a Small Carpentry Workshop

BASIC REQUIREMENTS

THE basic requirements are that it should be dry and well lit. A reasonably large window will be needed, before which the bench should be placed. Electric light is preferable for after-dark work and the lamp should be shaded and placed centrally over the bench and a little in front of the worker. Another lamp placed so as to cast light over the shoulder is an additional convenience.

A rack for timber will be an asset and can be made from second-hand wood. It consists of two or three ladder-shaped frameworks fixed 'edge-on' to one wall and forming compartments in which lengths of timber can be sorted vertically. In this position they are least liable to warping.

The bench should be rigid and the top sufficiently stout so that it will not spring or vibrate when using the hammer or mallet. Too small a bench will seriously impede operations such as cramping up frameworks, etc. Tools can be stored in a small cabinet fitted with drawers or shelves, fixed under the bench.

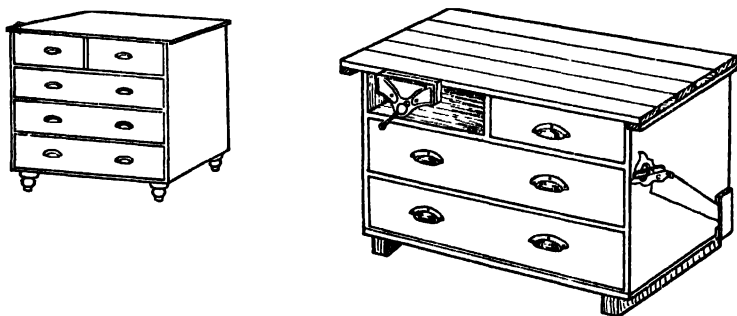


Fig. 51. A carpentry work-bench made from an old chest of drawers

Alternatively, a handy bench can be contrived from an old chest of drawers as shown in Fig. 51. The top is reinforced with 1 in. thick tongued and grooved floorboarding and the left-hand top drawer removed to make space for mounting a bench vice. If the chest is tall, remove the lower drawer, cut down the sides so that the bench stands

about 30 in. high and reinforce the bottom with stout framework.

The discarded drawers can be fixed to a wall and fitted with shelves. These will hold small items and tins for screws and oddments. Notice also how saws are kept safe by shaped blocks and wooden turn buttons fixed to the side of the bench or alternatively on a wall or the back of the door.

HANDYMAN'S TOOL KIT

All the following are necessary tools; additions can be made as required. Do not buy so-called 'cheap' tools—in the long run they are seldom satisfactory. Those by reputed makers cost a little more and represent money well invested.

Metal Smoothing Plane. Recommended size 10 in. long, 2 $\frac{3}{8}$ in. cutter. Superior to wooden type and used for general purposes.

Double-faced Oilstone. Medium and fine faces on opposite sides. Carborundum stone for general sharpening.

Brace. 10 in. sweep with ratchet action recommended. Can be used in confined places and worth the slight extra cost over the plain type.

$\frac{1}{4}$ in. and $\frac{3}{8}$ in. *Twist Bits.* The usual sizes for dowelling. Jennings or Geddes pattern recommended.

Handsaw. Cross-cut saw recommended for general use, an average size being 24 in. long with 7 points per inch. ('Points per inch' determines tooth size and is reckoned as the number of saw points per inch measurement, *including* those at both ends.)

Tenon Saw. For cutting joints and general use. A useful size is 12 in. long with 14 points per inch.

Turnscrew Bit and Rose Countersink. Square-shanked types for use in the brace.

$\frac{1}{4}$ in. and $\frac{3}{8}$ in. *Firmer Chisels.* For general use.

Wooden Mallet. For general use. About 2 $\frac{1}{2}$ lb. weight.

Claw Hammer. Useful weight 1 lb. 8 oz. Has claw head for extracting nails.

Cutting Gauge. More useful than marking gauge. Can be used in any direction of the grain or for slitting plywood.

Try Square. 8 in. or 10 in. size recommended. For marking out and checking squareness.

Bradawl, Pincers. For general use.

Cabinet Screwdriver. Useful size about 8 in. long.

2-Foot Rule. Four-fold type.

Woodwork Bench Vice. An essential item. If any amount of work is to be done, the vice should be of the steel pattern with at least 6 in. wide jaws. The quick-release pattern is a great advantage, and is well worth the extra cost. Make sure it is rigidly fixed and fit wooden vice cheeks to prevent damage to the work.

CARE OF TOOLS

Tools should always be kept in first-class condition. Wipe all metal parts occasionally with a rag moistened with lubricating oil especially during winter months. Always lay down planes on their side; if put sole downwards you may lay the cutter on a nail and thus nick the edge. Keep chisels well sharpened. Each time they are used they can be stropped on a piece of leather smeared with a little lubricating oil or razor-sharpening paste. This lengthens the 'life' of the edge and reduces the amount of sharpening required. Always wipe oilstones before putting away. Old oil clogs the pores and spoils the 'cut' of the stone. Use only fine lubricating oil—never linseed oil, which hardens and chokes the pores.

Basic Carpentry Operations

SAWING

ALWAYS cut on the waste side of the marking-out line, otherwise the piece will be too narrow after the edge has been planed. Work steadily and avoid forcing the saw or it will drift away from the line. Accurate sawing for joints is done by chiselling a sloping groove on the waste side of the knife line.

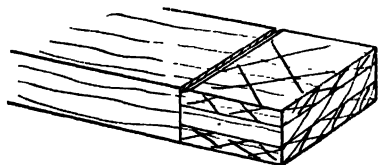


Fig. 52. Basic carpentry operations—sawing

(Fig. 52) The saw runs in this channel and is thus accurately located. A candle-end rubbed on the blade is an excellent lubricant.

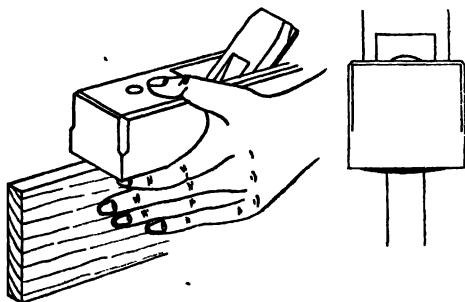
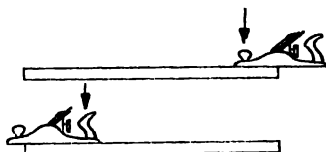


Fig. 53. The technique of planing

PLANING

A **STEADY**, even pressure throughout the cut is essential. Press at the front when starting and at the back when finishing. (See above.) This avoids hollowing out the wood. Rub the plane-sole with a candle to act as a lubricant.

A good way of planing square edges is shown in Fig. 53. Notice how the fingers of the left hand curl under the plane and act as a gauge. The sketch shows why, for the slight curve of the cutter is thereby kept centrally over the edge.

BORING

EXCEPT when boring end-grain, woodworking twist bits need very little applied pressure. The screwed part at the tip bites into the wood and draws the cutting edges after it. Never lubricate a bit, for if the hole is used for dowelling, the glue will not adhere to the pily wood. To check that the bit is being held vertically, stand a T-square beside the bit where the vertical blade can be seen when working and used as a guide. Stop boring as soon as the screw point emerges from the wood, then bore from the other side. This ensures cleanly-cut holes.

CHISEL CONTROL

A FINGER curved round the chisel steadies the tool and prevents accidents. (Fig. 54) The sharper the chisel, the less the effort required. To minimise the vibration when chopping mortises (and thus prevent accidents), fix the wood on a solid part of the bench such as over a leg. 'G'-cramps are useful for this purpose.

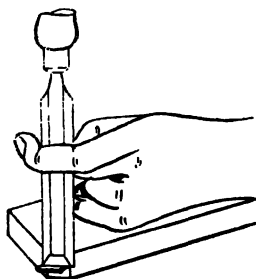


Fig. 54. Chisel control—how to hold the tool

GLUING

THE glues in normal use are: animal glue, casein glue, fish glue, synthetic resin glue.

Animal glue. The best known type is Scotch glue, made from animal bones and hoofs. (A more refined form is made from animal skin and is sometimes known as Salisbury glue.) Scotch glue is sold in cakes or as small beads called 'glue pearls'. Break up the cakes and steep in water until jellified. Heat in a glue pot and stir well. Remove the scum and thin with hot water. The consistency should be such that it runs freely off the brush without showing lumps yet does not break up into drops, with the brush held three or four inches above the pot. Use hot, and heat the wood to be joined so that it does not chill the glue. Scotch glue forms an extremely strong bond and does not stain the wood. It is not waterproof and therefore should not be used for outdoor work.

Fish glue. Made from the skins and heads of fish but in its best form from isinglass. Is used cold and is handiest for small jobs. Has a slightly higher water resistance than Scotch glue.

Casein glue. Made by precipitating skimmed milk by weak acid solution and available as a powder. Is used cold and joints must be clamped until the glue is dry. Casein glue is mixed as required and allowed to stand for a time before use. It has fairly high water resistance and an extremely strong glue-line, but it is liable to stain woods containing a high acid content such as oak and mahogany.

Synthetic Resin glue. Made in a wide range of types, synthetic glues are best avoided for ordinary work both because they are expensive to use and the large number of types (each of which generally has at least three varieties of hardener) is apt to be confusing. Another drawback from the small users' point of view is that some synthetic glues become 'rubbery' if stored for more than a few months and thus become wasted.

PLUGGING

SEE PLUGGING WALLS, p. 94.

Simple Carpentry

FIXING SHELVES

(a) Open-ended shelves. Support on metal brackets, fixed to the wall with brass screws. Use stout wood and as large a bracket as possible.

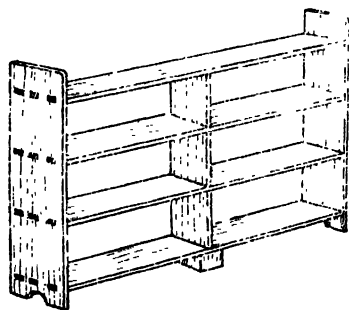


Fig. 55. A simple bookshelf scheme

(b) Closed-end shelves. First screw two strong wood battens to the wall one at each end of the shelf, (see PLUGGING WALLS, page 94), then screw the shelf to the battens.

Always paint shelves before fixing in position.

BOOKSHELVES

Use wood at least $\frac{5}{8}$ in. thick for small books and $\frac{3}{4}$ in. to 1 in. thick for heavier ones. Shelves longer than about 30 in. need a

support in the centre. When fitting them in a recess, screw to battens fixed to the wall with screws and wall plugs.

Fig. 55 shows a simple bookshelf scheme. Hardwood (minimum

thickness $\frac{3}{8}$ in.) is used throughout—with the exception of a hardboard or plywood back which is screwed in place. Each shelf is fixed to the ends with three mortise and tenon joints. Saw cuts are made in the tenons and glued wedges driven in after the joints are assembled. The central uprights are held in shallow grooves cut in the shelves—the back holds them in place. A thick wooden block fixed under the bottom shelf rests on the floor as a central support.

REPAIRS to legs and feet of chairs and tables, the joints and framework; carcass repairs, levelling chairs, etc. (See FURNITURE, p. 135)

CONVERSIONS

A new lease of life can often be given to outmoded furniture by conversion. Fig. 56 shows a marble-topped washstand so treated. The marble makes an excellent pastry shelf, supported by two large brackets, whilst the underneath cupboard is removed and becomes a wall cupboard or medicine chest. The tiled back can also be used as a shelf in the pantry or bathroom. A new top of stout composition board or hardboard fitted in place of the marble converts the rest of the wash-stand to a hall table. As an alternative, saw off the legs, fit two large wooden brackets and use it as a wall-fixed dressing table.

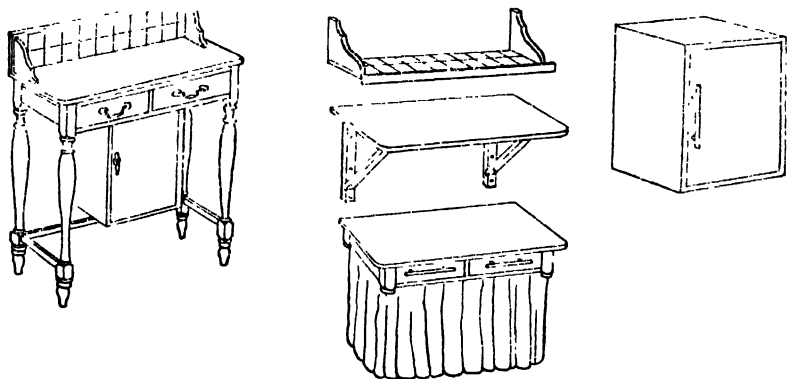


Fig. 56. Converting a marble-topped washstand

Large ornate gilt-framed mirrors can be modernised by removing the mirror and fixing it to a composition board backing with mirror clips. Mount flush on the wall with mirror plates. (See TO HANG MIRRORS, page 95)

Brazing and Soldering

BRAZING

THE following materials will be required:

(a) Flux. Use borax, ground and mixed with water to form a paste. Alternatively, use a proprietary flux such as 'Boron Compo'.

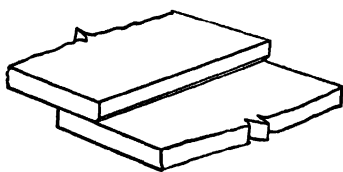


Fig. 57. When brazing, spaces into which the spelter can flow must be provided

(b) Spelter (a brazing alloy), or soft brass wire.

The parts to be brazed must be absolutely clean and free from grease. Spaces into which the spelter can flow must be provided as in Fig. 57. Apply the flux wet and heat the parts with a blow-lamp until bright red. Maintain the heat and rub the spelter or brass

wire along the joint until it melts and flows. Allow joint to cool and wash off any residue of flux.

SILVER OR HARD SOLDERING

THIS is similar to brazing but grooves for the solder are not required, in fact the closer the joint, the better will be the results. Borax is again used as a flux and silver solder as the jointing agent. Provided the surfaces are clean, the silver solder will 'flash' round the joint and enter by capillary attraction. Apply the flux wet and heat the parts dull red. (Care must be used when silver soldering brass as this melts at bright red heat.) To assist the flow, scratch the stick of solder along the line of the joint whilst maintaining the heat—it will soon melt and 'flash' or run into the joint. If it does not do so, either the temperature is too low or the joint has not been sufficiently cleaned. Allow the joint to cool after soldering then wash off any flux residue. Brass articles can be quenched and cleaned in an acid pickle consisting of a solution of equal volumes of sulphuric acid and copper sulphate. This greatly improves the finish.

SOFT SOLDERING

(a) *For electrical purposes.* Use only resin-covered solder or tinman's solder with a resin flux.

(b) *For mechanical purposes.* As above or use tinman's solder with an acid base flux such as 'killed spirit' (zinc chloride), 'sal-ammoniac'

(ammonium chloride) or 'Bakers Fluid' (a proprietary brand of acid-based flux).

Soft soldering is done either directly in a gas or spirit flame or by using a soldering bit, the latter being the more usual practice. The bit is made of copper mounted on a mild steel handle. Heat the bit until nearly red and clean the extreme tip with a file. Immediately apply flux and solder to the tip. The solder will melt and amalgamate with the copper, spreading over the cleaned and fluxed part of the bit. This is termed 'tinning' the bit.

Parts to be soldered must be freshly cleaned and free from grease. Apply flux to the joint and touch with the heated bit. This heats the joint and the solder is then applied. Do not use more than is necessary to cover the joint, and wipe away any surplus flux. When resin has been used this is best done with a rag damped with methylated spirit whilst the joint is still hot. Acid-based flux, in particular, must not be allowed to remain on the joint or it will corrode the metal and may later lead to fracturing of the joint.

ALUMINIUM SOLDERING

Until recently this has been a comparatively haphazard process, but new developments in technique have made successfully soldered joints in aluminium easy to obtain. Aluminium rapidly oxidizes upon exposure to the air and the jointing surfaces are therefore de-oxidized for two minutes prior to soldering by applying the following solutions: phosphoric acid, 20 parts; nitric acid, 5 parts; water, to 100 parts.

Apply the mixture to the jointing surfaces *for not less than two minutes*. Wash in cold water, then 'tin' the separate parts with a freshly cleaned soldering bit, using one of the special proprietary brands of 'aluminium solder' which are composed of 90 per cent tin and 10 per cent zinc. No flux is used in the process, following which the ordinary soft soldering process is used to make the actual joint.

Distempering

VARIOUS MATERIALS AND THEIR USES

DISTEMPERS may be defined as paints thinned for use with water. All types contain whiting (chalk), gypsum, or other finely powdered mineral white, mixed with lime-resisting pigments which give colour. Various fixatives are employed and it is these substances which decide the character and uses of distemper.

ORDINARY DISTEMPERS

These, which are also termed size, or glue-bound distemper, employ diluted glue as the fixative. They are economical, suitable for use upon ceilings, friezes, and other areas out of reach, and can be sponged off with water when redecoration becomes necessary; they are therefore classed as non-washable. This type is extremely porous and is often recommended for the preliminary decoration of new plasterwork, which is surface-dry but too new to permit applications of non-porous (washable) paints. It should only be used upon porous surfaces in a clean and dry condition.

Oil-bound distempers. These contain linseed or other drying oil combined with melted glue and high-grade pigments. The best are washable and can be used on either interior or exterior surfaces.

Washable distempers. These include both oil and casein-bound types, some quite waterproof, others slightly porous so that, after prolonged soaking with hot water, they may be removed with difficulty. The best varieties are oil-bound distempers thinned for use with 'petrifying liquids' (an oil emulsion) and water. This special medium increases resistance to moisture and so makes the paint waterproof.

Several new types of water paints use cement as the fixative. These are particularly efficient when used upon exterior cement work.

AMOUNT REQUIRED

This is assessed on the basis that 1lb. of paste (or powder) distemper covers five square yards of surface, one coat only.

TO MIX DISTEMPER

Most distempers are supplied in stiff paste form and require emptying into a clean pail for dilution. In cold weather warming the distemper makes the mixing with water easier. Add water a little at a time, stirring until the mixture is free from lumps.

Powder distemper is sprinkled slowly into the stated amount of water, stirring briskly until quite smooth; it should be mixed several hours before using.

Home-made distemper is prepared from ordinary whiting mixed to a creamy paste with cold water. This may be tinted by the addition of powder colours (mixed separately in water). The fixative is prepared by adding $\frac{1}{2}$ -gallon boiling water to $\frac{1}{4}$ lb. concentrated size, and stirring until dissolved. This is mixed with the whiting ($\frac{1}{4}$ lb. size to 5 lb. whiting) and the whole then strained through strong muslin held taut over a clean bucket. A few drops of 'Milton' helps to preserve the mixture for several weeks.

PREPARATION OF SURFACES

All dirt, grease, non-washable distemper, flaking distemper and old wallpaper must be completely removed. Strip old wallpaper with a painter's scraper and sponge the wall clean afterwards. Use hot water to wash off dirt and grease. Wet thoroughly small cracks and holes with clean water and fill with 'Alabastine', Keene's cement, or a mixture of distemper and plaster of paris (equal parts, applied with a broad scraper). (See **REPAIRING DEFECTIVE PLASTER**, p. 92) When dry, smooth any rough places with No. 1½ glasspaper, and seal stained areas (see **DAMP AND STAINED CEILINGS**, p. 96). The heads of nails employed in fixing wallboards, etc., should be painted to prevent rusting and, when dry, the hollows filled.

Painted and other impervious surfaces form unsatisfactory grounds for distempering, but where this is unavoidable, the surface should be covered with plain lining paper prior to distempering. (See **PAPERHANGING**, p. 183)

HOW TO APPLY DISTEMPER

Since an evenly coloured finish depends mainly upon the uniform smoothness of the undercoat, choosing the right type and number of undercoats is essential. Size-bound distemper demands an undercoat composed of weak, jellied size containing about 20 per cent of the finishing colour. Washable distempers require no special undercoat, but, in the case of oil-bound types employed upon bare plaster, it is advisable to thin the first coat with petrifying liquid only.

On surfaces previously coated with washable distemper the new material is thinned with petrifying liquid and water (equal parts), or according to manufacturer's instructions. When the first undercoat is dry, any porous areas (distinguishable by their paler colouring) should be touched-up before proceeding further.

Distempers dry rapidly, so (1) keep all doors and windows closed until completion; (2) use a 6 in. distemper brush for large areas and a small brush for edges adjoining woodwork; (3) make sure that the material is thinned to an easy brushing consistency; (4) work quickly and methodically, completing each wall in a series of vertical strips each about half-a-yard wide, beginning at the top and continuing downwards to the skirting, using vertical brush strokes throughout and overlapping slightly upon the strip previously applied; (5) as each wall is completed remove all splashes on woodwork and floors with a damp cloth.

To clean down distemper (see **WALLS: HOW TO CLEAN**, p. 92)

LIMEWASHING

Limewash or 'whitewash' is prepared from either hydrated (garden lime) quick-lime, or from slaked lime, the first-named being preferable. These mix readily with cold water. This wash is most economical and is widely used in cellars, outhouses, and other damp situations which it helps to deodorize. It may, if desired, be tinted with lime-resisting colours (obtainable from decorators' merchants). Limewash may be applied by brushing, or spraying, but some form of eyeshield should be worn.

Painting

GENERAL POINTS

(1) Surfaces to be painted must be quite dry, free from dirt, grease, flaking, powdery, and tacky material, and in most cases should be reasonably smooth. (2) The paint must be in good condition, suitable for its purpose. (3) Brushes should be clean and not too badly worn. (4) How the paint is put on is equally important.

TYPES OF PAINT: HOW TO CHOOSE FOR VARIOUS JOBS

There are three main types of oil paints: (1) priming paints (containing a high proportion of linseed oil), used as a first coat upon unpainted surfaces: (2) undercoats (dull or semi-gloss paints), for obliterating and colouring the background, checking surface porosity, and producing a smooth ground for the finishing coat; (3) finishing paints, high gloss, semi-gloss, and flat (dull) suitable for interior work only. Emulsion paints, a fairly new invention, resemble distemper in appearance, and are applied in a similar way, but, like oil paints, can be used (in the correct variety) for outdoor as well as indoor work. They contain synthetic emulsions which, although thinned with water, dry rapidly with a silky, waterproof finish either matt or glossy according to type. They require no special undercoat. Their outstanding opacity and resistance to moisture and steam makes them excellent for kitchens and bathrooms. For surface preparation see DISTEMPERING, p. 173.

All the foregoing types are available in two distinct qualities: (a) paints for interior work only, and (b) paints for exterior work which, incidentally, are equally necessary for the insides of window frames, skylights, bathrooms, kitchens, and other interior surfaces exposed to steam and condensation.

Each paint must be employed in the right situation, while high-grade 'decorator's' paints are more likely to prove more economical

in the long run, than cheap varieties of 'household' paints. The following are usually available:

(1) Special priming paints for various surfaces, including woodwork, ironwork, and plasterwork. (2) Undercoats for both interior and exterior work (the latter often contain white lead). These should be similar in colour to the finishing coat of paint. (3) High gloss paints, also termed gloss enamel paints and varnish paints, which are slightly transparent—hence the need for a well-painted background of uniform and similar hue. They give a durable and washable finish. (4) Flat-oil paints: these dry without gloss and are ideal for ceilings, also for walls not exposed to hard wear. (5) Floor paints which dry rapidly and with a hard gloss and are available in a limited range of colours. (6) Heat-resisting paints, which are of several types: aluminium and other metallic finishes, Berlin black (both glossy and dull), and several coloured varieties.

HOW TO ESTIMATE QUANTITY REQUIRED

The amount required may be estimated fairly accurately, as follows. For a moderately smooth, non-porous surface: gloss paints, 1 gallon covers 70 to 80 square yards. Undercoats and flat-oil paints: 1 gallon covers 100 square yards. Rough surfaces require considerably more.

SELECTION AND CARE OF PAINT BRUSHES

Good brushes are a pleasure to use and greatly facilitate good work. The quality of a brush depends upon that of the hair or bristle, the type of cement used in fixing the hair, and the method of assembly.

Paint and varnish brushes should be made of the best hog-hair bristles, set in vulcanized rubber cement and secured by strong metal ferrules. A good brush is often stamped 'pure bristle', or 'genuine bristle', or 'rubber set', often with the makers' name.

The handiest type of paint brushes, termed 'flat paint or varnish brushes', have black bristles, bevelled at the tips and considerably thicker at the base. They should be thick enough to spread paint, varnish, and enamel equally well. Brushes of the following dimensions are recommended: 3 in. brushes, bristles to be $\frac{7}{8}$ in. thick at the base and $2\frac{3}{4}$ in. long; 2 in. brushes, $\frac{3}{4}$ in. thick and $2\frac{1}{4}$ - $2\frac{1}{2}$ in. long; $1\frac{1}{2}$ in. brushes, $\frac{5}{8}$ in. by 2 in.; 1 in. brushes, $\frac{5}{8}$ in. by $1\frac{1}{2}$ - $1\frac{3}{4}$ in. The 3 in. size is suitable for the painting of large areas and the smaller types for woodwork. Brushes termed 'fitches' are used in the painting of very small areas. For distempering choose a flat brush 6 in. wide, 1 in. thick, with black or grey bristles 5- $5\frac{1}{2}$ in. long.

Lambswool rollers will coat a flat surface (paint or distemper)

evenly, quickly and without the splashes associated with brush work, although a brush must be used for corners.

The care of brushes is important: Never allow brushes to stand in paint or distemper. Keep handles and ferrules clean during use. When temporarily out of use, leave paint brushes standing upright in a vessel containing water sufficient to cover the bristles. Keep varnish brushes in linseed oil. When job is completed, clean all paint and varnish brushes by dabbing gently in about half-a-pint of turpentine substitute and then by washing thoroughly with hot water and ordinary soap. Distemper brushes may also require cleaning with soap and water following a preliminary rinse in clean water. Hang up brushes until dry and then store away in mothproof containers. New distemper brushes or those that have been stored away should be soaked in cold water for about twenty minutes. (See Fig. 60, page 177)

PREPARING SURFACES, NEW AND OLD

New surfaces, asbestos, cement stucco (plaster), and plaster-work (except Keene's cement), must be allowed to dry thoroughly to ensure that the lime content is quite inactive. Next, rub down with No. 2 glasspaper, sweep down to remove dust, and then 'prime' (paint) with a proprietary sealing solution. When dry, fill any cracks and holes—including edges adjoining skirtings—with 'Alabastine'. Finally, glasspaper and touch-up these repairs with sealing solution when hard.

Keene's cement is usually primed with a thin flat-oil paint (prepared from white lead) immediately after the plastering is finished. The plaster is then allowed to dry out thoroughly before proceeding further (a period of six months is little enough for the drying of plasterwork in new buildings). If Keene's cement cannot be primed whilst newly applied, it may be treated as specified for ordinary plaster and cement.

All the foregoing surfaces should be undercoated and finished with flat-oil paints.

Wallboards require little preparation apart from the glasspapering and smoothing of joints, the application of a thin oily coat of priming paint, and, when dry, the filling of cracks and nail holes; such repairs should be touched-up prior to further treatment.

Smooth woodwork with No. 1½ glasspaper and dust down. Coat all knots with genuine shellac knotting (shellac varnish) and then prime the whole with thin oily paint, preferably a white lead priming paint (usually pink in colour). Resinous timber, such as Columbian pine, requires a special primer. Nail holes are filled with linseed oil putty when the priming paint is dry.

Ironwork should be scraped well, or rubbed with a wire brush, to remove as much rust as possible prior to painting, which must not be done until the work is perfectly dry. Suitable paints are white lead, red lead, red oxide, aluminium, or other proprietary makes recommended for the purpose.

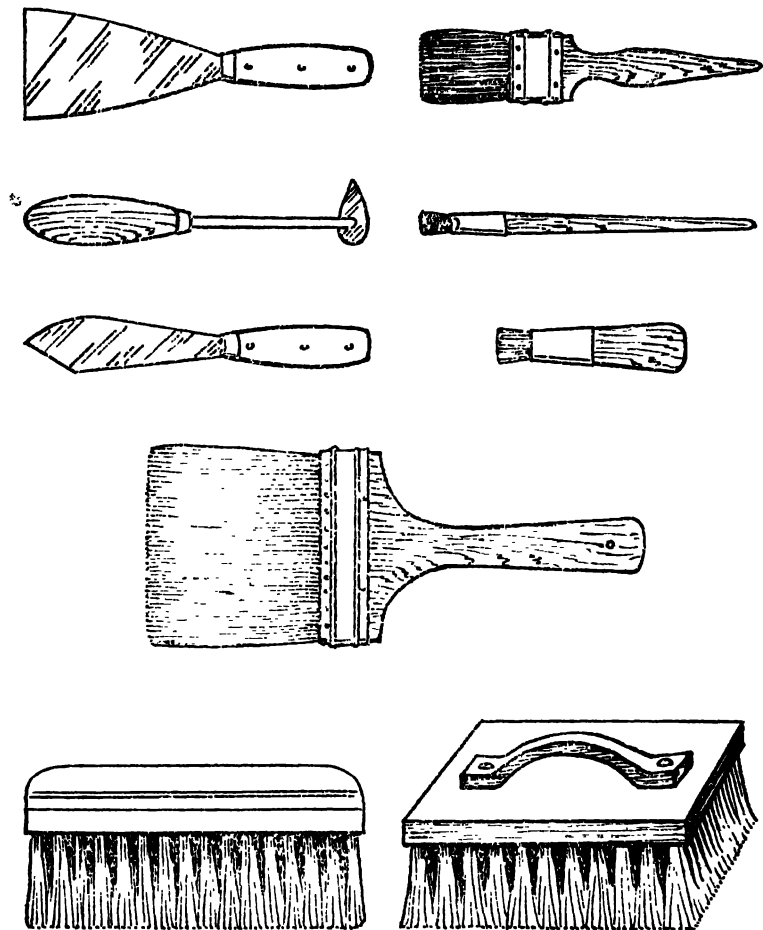


Fig. 60. Brushes and tools employed in house decorating: broad scraper; flat paint brush; shave hook; fitch; putty knife; stencil brush; distemper brush; papering brush; stippler

OLD SURFACES

Previously painted surfaces, irrespective of the underlying material, are prepared according to their present condition, i.e. paintwork free from blisters, cracks, flaking or other defects is usually

washed with a dilute solution of washing soda, and, whilst wet, is rubbed smooth with either waterproof glasspaper or pumice-stone, the whole being afterwards rinsed with clean water. When dry, stop any holes with putty before proceeding to paint.

Defective paintwork cannot be smoothed satisfactorily by means of abrasive, but old paintwork may be softened by means of solvent paint removers or, alternatively, with the aid of a blow-lamp flame and then scraped off (see REMOVING OLD PAINT AND VARNISH, below). Distempered and papered surfaces are prepared as specified for distemping (see p. 173), but the sizing should be omitted, and the walls primed with thin, oily paint.

REMOVING OLD PAINT

Three methods can be used as follows:

(a) *Burning off.* Soften the paint with a slowly moving blow-lamp, following close behind with a paint stripper. Not to be recommended for the inexperienced worker.

(b) *Proprietary solvent-type strippers.* These are the safest for the amateur. They dissolve the paint film, which is then easily scraped off. Apply with a soft brush, leave until paint softens and shrivels. then scrape off with a stripping knife. Several applications may be necessary on old work in order to remove successive layers of paint. Some solvent-type strippers contain wax which must afterwards be removed with a rag soaked in methylated spirit to prevent non-adherence of the new paint.

(c) *Proprietary saponifying-alkali type strippers.* These act by saponifying the oil in the paint, i.e. by turning it into a soapy mass, which is then removed with a stripping knife. It is essential that work is thoroughly washed down afterwards with water to which a little vinegar has been added in order to neutralize any residual alkali. Thorough rinsing in clean water must then be given. This type of stripper may also contain strong caustic and care is needed to avoid contact with the skin.

PAINTING CEILINGS AND INTERIOR WALLS

A uniform colour and finish can only be assured by checking surface porosity. To do this as economically as possible, the preliminary coatings must contain sufficient linseed oil to stop the suction. This applies to all porous surfaces, including any repairs to previously painted work, where touching up is necessary. As a general rule this retouching must be repeated until the surrounding area is properly matched with regard to porosity and colour. The observance of these points will save at least one coat of paint extending over the whole wall.

Previously painted (i.e. non-porous) work may then be painted with one or two coats of flat-oil paint, or if a gloss finish is required, with one coat of flat and one of gloss paint, or varnish.

Old plaster work, and work previously distempered, or papered, and afterwards prepared and primed, will have semi-porous surfaces which require one oily coat of paint before the finishing coat is applied. A flat, or semi-gloss finish can thus be obtained with three coats of paint, but for high gloss an additional coat is advisable since gloss paints, varnishes and enamels require a dull undercoat.

Suitable paints may be mixed from paste zinc white in oil, tinted with oil colours and thinned for use with refined linseed oil and turpentine in the following proportions: Priming paint, 3 parts oil to 1 part turpentine. Second coat, 2 parts oil to 1 part turps. Flat oil-finish, 4 parts turps to 1 part oil. In each case 1 oz. of oil is used. (See also CEILINGS, p. 96) Brush technique follows the lines already described for distempering. (See p. 173)

PAINTING AND ENAMELLING WOODWORK

Undercoating is usually carried out with semi-gloss paint, i.e. paint thinned for use with equal parts of oil and turpentine, but the final undercoat for all gloss finishes must be semi-flat. To maintain smoothness it is advisable to use undercoats a little too thin, rather than too thick. This may involve one extra coat of paint, but the brushwork will be superior in quality. The application of thick paint—unless used sparingly—usually results in coarse brushwork which, if allowed to dry, can only be smoothed by means of water-proof glasspaper used wet.

Enamels and varnishes are applied in the same order as undercoats, but with a more liberal coating. Because of the comparative thickness of these materials the brush strokes require slow and forceful application whilst following the directions laid down for undercoating.

Doors are important items in both exterior and interior work. These are painted as follows: (1) panels are coated first, the paint being applied in the direction of the grain and then brushed crosswise to give a uniform film before finishing with the lightest possible strokes, again with the grain, (2) mouldings are painted next, avoiding excessive accumulations in angles and grooves; (3) finally all surrounding rails are completed, with brush strokes following the grain. Paint exterior doors early in the day, and leave open as long as possible, thus allowing the paint to set, or dry, before nightfall. Both undercoats and finishes must be specially prepared for outdoor use.

PAINTING THE OUTSIDE OF A HOUSE

The first essential is good weather, to ensure that all surfaces shall be perfectly dry when painted. It is always advisable to start at the top and work downwards, thereby getting rid of dust and dirt before finishing the windows and doors. With this object in view, plan the work as follows:

Make any necessary repairs to cement work, windows, pointing around windows, etc. Effect minor repairs to roof and paint skylights, after which clean and scrape gutters (inside and out) and allow to dry. Give insides of gutters two coats of gloss paint, and undercoat the outside including fall pipes. Prepare and undercoat window frames, doors and painted walls; complete the gutters. Finish any painting to walls and, when dry, that of the fall pipes and window frames. Tackle the doors. These frequently occupy a sheltered position so may be left to the very last. Finish with railings, fences and gates apart from the main building.

Fences. In the case of new timber fences there are several alternatives, the most economical being to use creosote, or other wood preservatives.

Ironwork and previously painted woodwork must be treated with oil paint of the most durable type, especially when railings are in direct contact with earth. Before painting, scrape well to remove rust, soil, or other undesirable matter. Pull shrubs to one side by means of a rope secured to convenient stakes.

Ladders must be used with care where outside work is concerned. They should be kept on a solid and level base and should form an angle of about 80 degrees (with the ground) during use. When painting gutters, keep the ladder head just below the gutter and not resting upon its edge.

PLASTIC PAINTING

Plastic paints are available in two forms: (1) ready mixed, and (2) in powder form, to be mixed with cold water, as required. Many are coloured, and may be stippled, or combed, immediately following their application, producing low relief textures and patterns. They help to disguise uneven plasterwork on walls and ceilings.

Surfaces to be decorated with these materials should be prepared as for oil painting (see **PREPARING SURFACES**, p. 176), but give porous surfaces one undercoat of ordinary semi-gloss paint to stop excessive suction. When this is dry, apply the plastic paint with a 4 in. brush and pattern by stippling with a sponge, or brush.

SPRAY PAINTING

A simple type of spray applies creosote, limewash, and whitewash with good effect, providing that these materials are moderately thin and properly sieved to remove grit. Other types of portable sprays are electrically operated and will apply distemper, emulsion and flat-oil paints equally well. Manufacturers' instructions should be followed carefully.

STIPPLING AND STENCILLING

Stippling used on flat and semi-gloss, but not on high-gloss paints, involves the light dabbing of a freshly painted surface in order to remove brush marks, secure uniformity of colour, produce a fine texture, or (in some cases) to blend two or more colours. Coarse textures can be obtained by stippling with special brushes containing rubber in lieu of hog-hair bristles. This method gives some interesting mottled effects in two colours, e.g. pale blue upon an ivory undercoat, etc. Similarly, a delightfully soft pattern is obtainable when a semi-gloss oil paint is stippled.

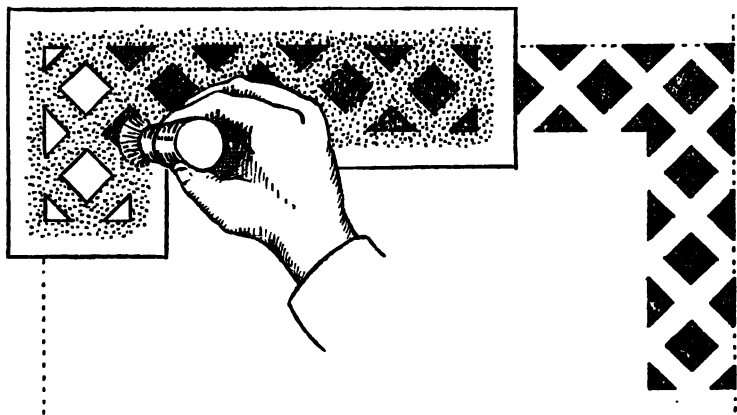


Fig. 58. Stencilling a border pattern. The dotted line indicates the chalk line used as a guide

Stencilling is usually executed in oil colour, the paint being stippled (dabbed) through the apertures of a stencil plate to form the pattern. Stencilling is a simple and efficient means of decorating or panelling painted or distempered walls with borders, lines and corner

pieces. To prepare a stencil plate, sketch the design upon cartridge paper and then cut out the parts to be painted. It is essential that stencil plates shall contain sufficient ties, i.e. strips of paper holding the plate together and at the same time forming part of the design. after the fashion of lace. In borders the pattern must repeat accurately especially at the ends.

The actual stencilling is carried out as follows. Place about one teaspoonful of paint upon a clean board, from which it is picked up by a stencil brush, the latter being stippled upon a dry section of the board (to remove surplus paint) before use upon the stencil plate. To ensure good work, the stencil plate must be held firmly against the wall and the brush must be semi-dry whilst stippling very lightly over the apertures (see Fig. 58).

Paperhanging

EQUIPMENT AND MATERIALS REQUIRED

THE minimum equipment for paperhanging must include: A rectangular table or bench measuring about 6 ft by 2 ft. This may be improvised from lengths of timber secured by battens and placed upon any available table. A part-worn distemper brush, for pasting. An apron containing a large pocket. One large pair of scissors; 2 ft rule; lead pencil; string; chalk; papering brush; broad scraper and trowel.

Materials comprise: Weak jellied size; plaster, or Keene's cement, and No. 2 glasspaper—for surface preparation. Paperhanger's paste, which may be made from a proprietary paste powder and water or, alternatively, from 2lbs. of household flour mixed to a stiff batter with cold water and then scalded with one gallon of boiling water, stirring briskly until thickening occurs.

Most important of the many different types of wallpapers are: Ordinary papers, patterned and plain, with embossed and flat surfaces. Washable papers which withstand sponging down. Sanitary wallpapers which may be sized twice and then varnished after application. Varnished sanitariums. Lining papers, plain, coloured, and damp proof; the latter being used upon areas where dampness has recently been cured. Borders of various widths are also available, some having straight edges while others are 'cut out', i.e. having one edge scalloped.

MEASURING FOR WALLPAPER

SINCE the majority of English wallpapers are supplied in rolls

measuring $11\frac{1}{2}$ yards by 21 in., the amount required for any room may be calculated as follows: First measure the height of the room (adding 6 in. for waste) and ascertain how many full lengths are obtainable from one roll; e.g. on a 9-foot wall each roll will give three lengths and a short length of 6 ft (which may be required beneath windows, etc.). Then measure the number of full lengths required, and divide the total (in this instance, by 3) to assess the amount required.

PREPARING SURFACES

THIS involves the same treatment as for distempering (see *DISTEMPERING: PREPARATION OF SURFACES*, p. 173) but, following this, the work must be given one coat of weak jellied size.

METHOD OF PAPERHANGING

WHEN paperhanging (and distempering) it is advisable first to complete the painting of adjoining woodwork. While the paint is drying, compare the rolls of wallpaper to ascertain that all are of equal tone and colour. Next remove with scissors all selvages. Measure and cut full lengths of paper, taking care that the pattern is correctly matched. Prepare and (when cool) dilute the paste to a thick creamy consistency.

Papering is usually started at one side of the window frame and continued by successive lengths until a convenient door, angle, or equally suitable break is found on the wall opposite. This procedure is repeated on the other side of the window frame, again working away from the light in order to disguise the joins. When hanging papers with large or well-defined patterns, it is usual to begin by hanging the first length with its pattern centred upon the chimney breast, afterwards working to left and right.

Once the starting point has been decided, the cut lengths must be placed pattern downwards upon, and a few inches away from the front edge of the bench. The first length should then be moved forwards until its matching edge is in line with that of the bench and its top edge coincides with the end of the bench. The paper is held firmly whilst the centre portion is pasted, leaving edges until the last. At this stage the underlying paper is moved slightly backwards before completing the pasting of the length. Finally, the bottom end of the length is folded in readiness for hanging (see Fig. 59, p. 184).

Since wallpaper is generally applied vertically, it is essential that the first length is hung perfectly upright. To ensure this, the paper is applied to the wall and attached at the top few inches only whilst

one edge is tested with a plumb-line (string, weighted at one end). It should then be possible to slide the wallpaper when making any necessary adjustments before brushing and thus securing the whole

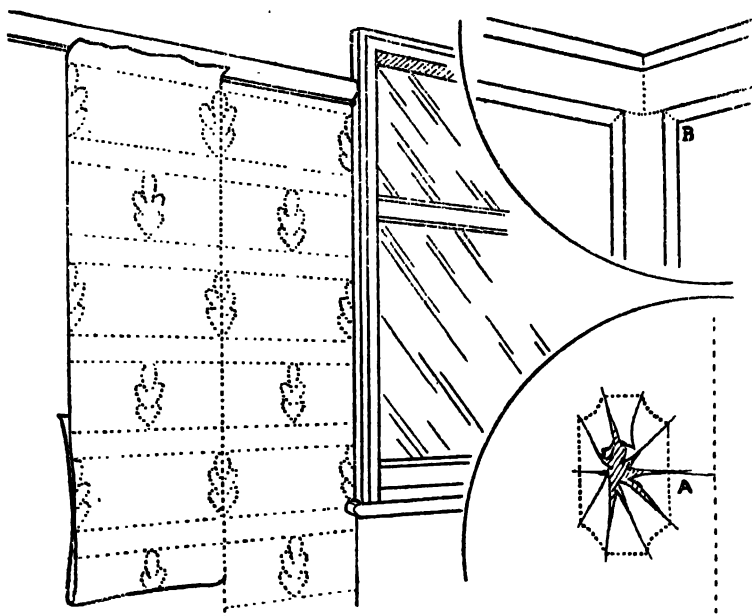


Fig. 59. Hanging wallpaper. The lower portion should remain folded until the upper half is correctly hung. (A) cutting round obstructions; (B) mitring of stiling border

length. Surplus paper at top and bottom is then marked and trimmed off, and adjacent paintwork wiped clean with damp a sponge.

Successive lengths are checked occasionally with the plumb-line and necessary corrections made, but wherever possible the joints should be kept flush and the pattern matched correctly. Particular care is necessary when working round a vertical angle. This involves the cutting of a vertical strip about $\frac{1}{4}$ in. wider than the space to be filled, thus allowing an overlap upon the adjoining wall to which the remaining portion of the length is applied and plumbed.

Wall brackets, switch plates, and other obstructions should be removed prior to papering and replaced immediately afterwards. Safety precautions, such as switching off electric power at the meter, must be observed. The method of cutting around obstructions is shown in Fig. 59 (a).

Borders are widely used in the panelling of wallpapers, or, alternatively, to form horizontal divisions on the upper and lower parts

of walls. The application of narrow borders is quite straightforward, the vertical ones being plumbed, and the horizontal bands checked with a spirit-level. When rooms are to be panelled with stiling borders (straight borders, from 4-10 in. wide) it is advisable, when papering the walls, to leave blank spaces where border is to be applied. Horizontal borders are then fixed and, finally, the vertical strips are hung and mitred carefully at the corners (see Fig. 59 (b)).

Plastering—See WALLS, p. 92.

Stencilling—See PAINTING, p. 181.

Stippling—See PAINTING, p. 181.

Whitewashing—See DISTEMPERING, p. 174.

Graining and Varnishing

GRAINING

THIS involves the application, upon a painted surface, of semi-transparent stain which is then patterned to suggest the natural grain of woodwork. In brush graining, the wet stain is patterned by drawing a dry brush across the surface. When dry, the work is varnished.

Grained surfaces are extremely durable and may be washed, retouched, and varnished at intervals of several years to maintain their original freshness, thus justifying the initial cost. Graining should be limited to the treatment of woodwork, or in situations where the use of timber would be acceptable.

VARNISHING

ABSOLUTE cleanliness throughout is the secret. Varnish brushes have bevelled tips instead of being flat-ended like paint brushes. This produces the fine 'edge' required for high-class finish. They should never be washed out in water as this may loosen the bristles; to clean them, wash them in turpentine and when dry wrap in clean paper and store away from damp. When working on a job the brushes can be left overnight suspended in a jar of varnish. Bore a hole through the handle which is then passed through a hole cut in the lid of the jar. A nail inserted through the handle keeps the bristles off the bottom of the jar and thus preserves the shape of the brush.

Several types of varnish are made, the two most familiar to the handyman being spirit varnish and oil varnish. Spirit varnish is sometimes used in place of french polish. It does not flow level after being brushed on and the 'streaks' are smoothed out by rubbing over the work with a wadding pad covered with linen and moistened with methylated spirit. The technique requires some practice before successful results can be consistently obtained.

Oil varnish is the type most often used and is particularly suitable for outdoor work. It flows level after brushing on and needs no further treatment. Apply on a fairly full brush and work in strips. Spread with an 'up and down' stroke, then cross strokes to even out large ridges of varnish. Finally, scrape the brush against the pot to rid it of excess varnish and brush upwards over the strip to take out any cross ridges and obtain an even surface (stripping varnish, see FURNITURE FINISHES, p. 141).

Miscellaneous Repairs

TO RE-ENAMEL A BATH

WHEN baths become stained or rusted, they may be cleaned and smoothed down with pumice stone (see PAINTING: PREPARING SURFACES, p. 176), and, when thoroughly dry, painted three or four coats and then enamelled, or varnished. To keep the bath clean and dry throughout the painting, secure empty jam-jars (with string) beneath the taps to catch any dripping water.

Special types of varnishes and enamels are made for the finishing of baths, the preliminary painting being carried out with flat-oil paint prepared from white lead, thinned to an easy brushing consistency with extra pale carriage varnish and turpentine substitute, in proportions 1 to 3 respectively. (See also PAINTING AND ENAMELLING WOODWORK, p. 179)

TO REPAIR BOOKS

SOME book repairs are shown in Fig. 61. When a cover tears from the back, open the book flat on a table and repair with a strip of adhesive tape. Next, glue strips of linen across the spine, lift the cover into register and glue the tapes down. Reinforce with extra linen tapes to the inside of the cover and the first leaf. To neaten, cover the repair with a sheet of bond paper.

The neatest way to repair a torn page is to coat the torn edges

with starch paste, bring them together and sandwich between sheets of waxed paper. Close the book, weight it and leave until the paste has dried. The paste will not adhere to the waxed paper.

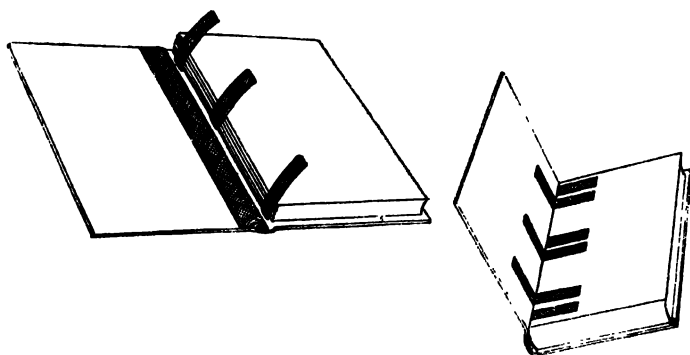


Fig. 61. Simple ways of repairing books

REFIXING LOOSE TILES

FIRST scrape off all loose and powdery cement from the back and edges of tiles, and from the wall surfaces. Continue scraping until the tiles fit snugly into place, in line with surrounding surfaces. Dust, clean, and give a coating of tile cement (from hardware dealers) to both tiles and wall. The tiles fix immediately. Vertical tiles may be held firmly (for a few hours) by leaning a step-ladder, etc., against the area concerned.

PART 6.—CLEANING AND REFURBISHING



Cleaning Methods

DUST is composed of tiny particles of mineral, animal and vegetable matter. The mineral is from roads, buildings, rocks, chimneys, etc.; the animal, minute scales and particles from skin, hair, breath, and clothes; the vegetable from pollen, etc., and living organisms such as bacteria, yeasts and moulds. Most of the last three are harmless, but dust sometimes harbours disease germs which, if left undisturbed, would develop and spread. Dust and dirt should be removed for the sake of health as well as appearance and sweeping and dusting forms a large part of the day-by-day attention to the home. Dust shows up most of all on smooth, polished surfaces, but it does not cling to them readily. Sometimes, especially in towns, it is grease-coated and eventually spreads a thin film of grease over all the surfaces with which it comes into contact, so one must reckon on some periodical cleaning operation which will remove this grease.

SWEEPING

Use a soft brush for hard surfaces, and a stiff bristle brush for carpets and rugs. Direct the dust away from you in short, not jerky, strokes, and collect it in a dustpan several times during the sweeping of a room. Burn or wrap it up in paper immediately.

DUSTING

Preferably use two clean dusters, the one in the right hand slightly dampened with water or dusting oil for collecting the dust, the other dry for rubbing up. If only one duster is used, it should be dry. Rub hard. If a vacuum cleaner is used, dust first. Otherwise sweep first and after the disturbed dust has settled, start dusting high objects and work downwards.

Ceilings and walls should be brushed down periodically with a clean duster tied over a soft, long-handled brush. Marks can often be removed from distemper or wall-paper with a soft India-rubber.

SCRUBBING

To spring-clean painted, papered, or distempered walls, see p. 92.

Try to avoid scrubbing on anything but white wood (e.g. draining

boards, kitchen table, pastry board). Use warm or tepid water, a flannel, soap, or detergent, and an abrasive for hard woods only. Wet only a small area at a time, scrub the way of the grain, rinse well, and pat dry. Too hot water, too much soda, too coarse abrasives, all roughen and discolour white wood and make subsequent cleaning more difficult.

ROUTINE CARE OF PAINTWORK, ENAMELLED, OR VARNISHED SURFACES

WASH as seldom as possible. A little detergent or a special paste cleaner will remove general soil. Use a soft cloth, rinse by wiping with the cloth wrung out of clean water, and dry. Stains on light paint may need the mildest abrasive—powdered whitening. Rinse off. Finish with a few drops of linseed oil to polish.

For external woodwork, whether painted or varnished, such as front doors, garden furniture, etc., instead of washing, rub with an old cloth sprinkled with paraffin. Then polish with linseed oil.

CARING FOR FRENCH OR WAX-POLISHED WOODS

RUB hard when dusting, and polished wood will stay bright for a long time. Only much-used articles such as dining-room tables will require a light application of polish every few days. Use furniture cream or polish sparingly and rub it in well. Any smears left will attract dirt very quickly. If an article becomes smeary, wash by wiping with a soft cloth wrung out of warm water and soapless cleanser. Rinse with a cloth wrung out of vinegar and water (4 tablespoonsful vinegar to 1 quart of water). Dry, and when quite dry, polish. Use a soft, clean, shoe-brush for polishing carved woodwork.

To remove small white marks caused by heat, spilt perfume, etc., pour two drops of methylated spirit on to a pad of cotton wool. Cover with thin material, and rub over and round the mark. If the stained area is large, the whole surface will have to be repolished.

(See REVIVING FRENCH POLISH, p. 141)

LIMED OAK

Do not use polish. Rub up hard with a clean duster and, if necessary, very occasionally renovate thus. Leave a little metal polish in a saucer until most of the liquid has evaporated. Wash the limed

surface with warm water, then rub over with the metal polish sediment. Rub up with a clean duster.

UPHOLSTERED FURNITURE

BRUSH carefully or clean with a vacuum cleaner. Remove any grease stains with carbon tetrachloride or other grease solvent. To remove general soiling and freshen colours, shampoo with a lather of detergent. Whisk a strong solution of washing powder in a basin until a thick lather forms. Work this on to the upholstery with a circular motion and covering only a small area at a time. Scrape the lather off with a blunt knife, then rinse well with a cloth wrung out of clean water. Do not allow the material to become really wet, and dry it as quickly as possible.

CANE, RUSH, OR WICKER FURNITURE

PERIODICALLY wash in warm salt water. Then rinse in cold salt water. Dry in the open air if possible, and apply a little furniture cream. To shrink sagging seats, if unvarnished, first dab the top with a cloth wrung out of hot soda water. Then press the seat up from underneath with the hot wet cloth. Repeat several times, keeping the cloth as hot as possible.

TO CLEAN KITCHEN UTENSILS

SOAK all saucepans, casseroles, etc., as soon as possible after use. Use a stiff brush or brass-alloy sponge to remove particles of food.

ALUMINIUM

Use hot water and detergent, or else a soap which contains no soda. The dark tarnish which sometimes forms inside aluminium saucepans is not harmful, but for the sake of appearance can be removed by boiling up apple skins, lemon peel, or other acid fruit. The outside of the pans can be kept shining with fine steel wool. Soda should never be used on aluminium. It re-acts chemically and roughens the surface, making it difficult to keep clean. A gentle abrasive such as whitening may be used on the outside, but anything harsher would leave unsightly scratches.

ENAMEL WARE

Wash with soap and hot water. If necessary, salt can be used for scouring.

KETTLES

If a hard-water deposit is left, periodically treat with vinegar. Pour in enough vinegar to cover the bottom, warm, and allow to stand for some hours. If all the 'fur' will not scrape away, repeat the treatment. Rinse thoroughly.

STAINLESS STEEL

Wash with warm water and soap or detergent. Polish up with finely powdered whitening.

COPPER

A very poisonous substance (verdigris) is formed when copper tarnishes. Therefore copper cooking utensils must be scrupulously clean and food should be removed as soon as cooked. Wash well with hot soapy water and abrasive. Polish the outside with whitening. Do not use acid, especially vinegar, in copper cooking utensils.

SINKS

Wash round with hot soapy water immediately after use. To clean the usual kind of glazed earthenware sink, use a gentle abrasive (the paste types are to be recommended) as necessary. Coarse scourers leave scratches which hold dirt and germs. After dirty jobs in the sink, wash with hot soda water. Once a week at least, put a large lump of soda on the waste grille, and pour boiling water over it, to clean the pipes. Remove any discolouration with commercial chlorine bleach, following the directions on the bottle. Clean aluminium sinks with steel wool; porcelain enamel with detergent. Stainless steel sinks need no special treatment. To clear a stopped-up sink, see DRAINS AND PLUMBING, p. 113.

TILES

Glazed: Wash with detergent and water and dry. Hearth tiles can be polished with furniture cream. If very dirty, wood ash makes a useful scouring agent.

Unglazed: Wash with soap or detergent and water, and scourer if necessary, but no soda.

LAVATORY PANS

Brush thoroughly daily and flush. Frequently sprinkle with commercial cleanser. If the pan has been neglected, pour in a solution of 1 part spirits of salts (very poisonous) to 5 parts of water, and rub discolouration with a cloth pad tied to a stick. Flush several times and burn pad and stick.

WASH BASINS AND BATHS

Swill round with warm water immediately after use. To clean, avoid harsh abrasives. Use the minimum of soft abrasive, rinse, and dry. Alternatively, use a powder or liquid detergent.

Greenish marks under a dripping tap can often be removed by hard rubbing with vinegar. Brownish marks may need the careful use of salts of lemon (very poisonous). Make up a solution of $\frac{1}{2}$ teaspoonful to $\frac{1}{2}$ pint water and drop some on the mark. Too much or too strong a solution may damage the bath.

COOKING STOVES AND GRATES**GAS AND ELECTRIC STOVES**

Wipe while still warm to remove grease splashes or spilt food. If food boils over, clean up clogged burners, etc., immediately. Wipe over oven while still warm. With an electric stove, which never needs more than wiping over with a cloth wrung out of hot, strong soda water, take care to switch off the current before cleaning and never allow water to come into contact with the heating element. With a gas stove, wash over with hot soda or hot water and liquid detergent about once a week, taking out bars, burners, etc. and scrubbing with stiff brush. Rinse with fresh water. Occasionally remove oven shelves for thorough scrubbing as above. Obstinate stains can be removed by rubbing with steel wool. For neglected gas ovens use a caustic preparation according to the maker's instructions.

SOLID FUEL RANGES

Follow maker's instructions where given. With kitcheners, remove ashes, empty the grate, and clear the space round the boiler. Remove the highest soot doors first and brush the soot downwards on to a newspaper. Systematically work down and eventually rake out all soot from under the oven on to a newspaper and bundle it up carefully. Make sure that all passages are clean and unblocked. Once a week, clean flues. Clean the surface of the range according to finish. It is advisable to protect hair, clothes, and kitchen equipment from the soot before beginning.

REFRIGERATORS

Always wipe up spilt liquids immediately. Remove all food from cabinet once a week and wash out interior with lukewarm water to which a little bicarbonate of soda has been added.

Laundry Work

EQUIPMENT

WASHING MACHINES

If you contemplate buying a washing machine, remember to consider these points. The amount of laundry you intend to do at home; what drying space you have; whether you are going to increase the amount of laundry done at home. Also, are you sufficiently robust to handle heavy wet sheets, etc? Can you cope with the extra ironing? Decide, too, whether you will need to retain a wash boiler to boil the whites occasionally. Some electric machines have now a gas burner or a heating element incorporated, but many washing machines do not heat the water and so cannot be used for boiling.

A variety of small electric machines that will fit under a draining board and take from 3-7 lb. of dry clothes are now obtainable. Some incorporate a hand-operated wringer. Others are slightly larger with electrically operated wringers. The same soap and water can be used for several loads. Some of the largest machines wash and rinse several times without the operator needing to handle the clothes. A good supply of hot water is necessary as in those models the same water cannot be used for two loads of clothes. Also, these machines are not portable, requiring special installation.

WASH BOILERS

There are self-heating gas and electric types, or for a small amount of laundry, a covered boiler, basin or bucket to boil up on the stove will be adequate.

WRINGERS

Wringers must be well anchored, either to a washing machine, a special stand, or clamped to a sink. The rollers should be dried and the pressure slackened after use. Clean the rollers if necessary with a rag dipped in methylated spirit.

DRYING EQUIPMENT

Electric and gas thermostatically controlled drying cabinets now available in various sizes are a boon in a flat or for bad-weather use.

IRONS

Before buying an iron, test for 'balance' by making ironing movements along a table. If the weight is towards the back there will be
G

a strain on the wrist when ironing garments, especially those with frills or gathers. Good makes of iron have evenly spread heat. Modern preference is for irons of 2-3lbs. weight. Thermostatically controlled irons simplify the work and are economical on current. Rotary ironers, which enable the operator to work sitting down, are expensive initially but worthwhile when there is a heavy wash and all household linen, including sheets, are done at home.

WATER SOFTENERS

If the water is hard, make up a stock solution in the proportion of 1 oz. of washing soda to 1 pint of water. To each gallon of water of 20 degrees hardness (London water) add 2 tablespoonsful of the solution. Leave for 5 minutes for the chemicals to react before adding the soap. Less soap will be needed and there will be less scum or lime curd.

SOAP, SOAPFLAKES, SOAP POWDERS AND DETERGENTS

A good soap, shredded and made into a jelly with boiling water, is useful for most washing. Soap flakes, too, are pure and easily dissolved. Most soap powders contain a little soda, which helps to soften the water, or bleaching agent, which keeps the whites white.

Detergents or soapless cleansers will dissolve easily even in lukewarm water, and give a good lather, free from lime curds, in hard or even salt water. Some types of detergent are recommended for fine things only; others do the whole wash and can be used for boiling, too. Soaking the clothes for a short period (about 30 minutes) is an essential part of the technique when using all types of detergent. Otherwise, wash as when using a soapy lather. In hard water, less rinsing is necessary with a detergent.

WASHDAY ROUTINE

BEFORE washday, attend to tears and stains that need special attention. Soak overnight in water, to which some borax has been added, garments which have been in contact with perspiring bodies, and tea cloths with fruit or wine stains. Collect systematically all the clothes that are to be washed. Empty all pockets, and sort into types. Wash table linen, undies, and other lightly-soiled articles first. Drop each article into the prepared lather and knead or squeeze (see above for method when using a detergent). Rub particularly dirty parts with a soft nailbrush. As soon as the lather becomes flat, and the water dirty, it should be changed. Rinse until the water is clear.

Wash separately woollens, any articles where there is doubt about the fastness of the colour, and most rayons. They all need lukewarm water, and should be squeezed and not rubbed. Rinse in water the same temperature as the washing water. When thoroughly rinsed, fold each article lengthwise buttons or zips inside, and put through the wringer. Woollies that might stretch and fragile items should be wrapped in a cloth before wringing.

If washing by machine, follow the maker's instructions. It may be necessary to rub the most soiled parts lightly by hand before putting in the machine.

THE WHITES

The last rinsing water for whites should contain a little blue. Most people feel that 'the whites' keep their colour better if boiled but it is usually enough to do this only every third wash. After washing the clothes, drop them into softened soapy water, and bring to the boil. Simmer for 20 minutes, then rinse, etc.

COLOURED S

Test for colour-fastness by wetting an unobtrusive corner (perhaps of the belt). Iron while wet on a white cloth, and if there is no stain, colours should be fast. If the running is 'slight', you might wash in cool water with detergent and salt. Otherwise have dry-cleaned.

STIFFENING

Linens and cottons should be lightly starched. Add 3 tablespoonsful of cold water to one of starch and mix to a paste. Pour on about 1 pint of boiling water, stirring all the time, until the starch becomes bluish. For the stiffest articles, tablecloths, etc., dilute with water, 1 part in 3; for table napkins, curtains, etc., 1 in 5; for shirts, dresses, etc., 1 in 8.

Old silks, rayons, and artificial silks may be revived by rinsing in warm water and gum. For a stock solution of gum water dissolve in a basin standing in a saucepan of hot water, 1 oz. of gum arabic in $\frac{1}{2}$ pint water. Strain and bottle. Use 3 teaspoonsful to $\frac{1}{2}$ pint of water for stiffening. Wrap garments in a towel and iron within half an hour.

DRYING

DRY most clothes out of doors if possible. Hang garments by the shoulders, stockings by the toes, sheets, etc., by the four corners.

Dry woollens flat, so that they do not stretch, and silks and most rayons rolled in a towel.

IRONING

WHEN ironing new materials for the first time, test on an unobtrusive part of the garment and be guided for the best iron temperatures. Most fabrics (except tussore or shantung silk, and dull-finished rayons) iron better slightly damp. Linen and cottons may be allowed to dry completely, then sprinkled with warm water and roll up just before ironing. Rayons must never be 'sprinkled' but should always be rolled up when they are nearly dry, and so kept evenly damp for ironing. Silks and rayons should be ironed on the wrong side, cottons and linens on the right. Woollens should be ironed lightly with a damp cloth.

Home Valeting and Mending

TO FRESHEN TWEEDS, WORSTEDS, SUITINGS, ETC.

BRUSH thoroughly, running over the garment with a vacuum-cleaner attachment, if you have one. Attend to stains and much-soiled parts such as collars. Then sponge generally. Add 2 teaspoonsful ammonia to 1 pint warm water, and sponge all over. If possible, use a pad of the same material as the garment. Rub hard and evenly, lengthwise. Rub dry with a second pad, and press on the wrong side.

Light-coloured garments should be brushed and then rubbed with a matching cloth-ball. Roll up in a clean towel and leave for some hours. Then brush well, preferably out of doors.

TO REMOVE GREASE MARKS

Use a grease solvent such as one of the proprietary makes of carbon tetrachloride, or benzine. Remember that those 'dry-cleaning' fluids must be used with care. Benzine is inflammable. Carbon tetrachloride has anaesthetic properties if inhaled. Work out of doors or by an open window.

Make a large pad of clean material and put this under the mark. Apply the grease solvent with another pad, working from beyond the outside of the mark towards the centre to avoid 'tide-marks'. Re-fold the pads frequently so that the surface being worked with is always clean.

TO REMOVE SHINE FROM CLOTHES

Rub gently with crumpled, fine emery paper, and sponge with ammonia.

DRY-CLEANING

To dry-clean small items such as lace or accordion-pleated collars, artificial flowers, etc., put the article into a screw-top jar with enough fluid (usually carbon tetrachloride) to cover and shake gently. When the dirt has floated out, pin the article out on a board to dry in the correct shape. The fluid can be strained and used again. Velvety flowers can often be improved simply by steaming. This raises the pile and softens the flowers so that they can be re-shaped if they have been crushed.

TO PRESS WOOLLEN GARMENTS

Use a special steam iron. Alternatively place a damp cloth on the ironing board. Put a single thickness of the garment over this, cover with another cloth, and press. The steam from the lower cloth will come through and freshen the material. Repeat, using dry cloths. Skirts which have 'seated', trouser knees which sag, etc., must be shrunk back into shape by covering them with a very damp cloth, and ironing with a circular movement until the cloth is dry.

After damp-pressing revers, the steam should be 'knocked in' with the back of a clothes-brush. The revers should not be pressed back, but allowed to roll. Give special attention to seams, which should be pressed on a rounded surface to prevent marking. A padded rolling pin is useful. Shoulders and the bust of suits are usually pressed over a large pressing pad, if necessary, held in the hand. A large, firmly-folded towel would do as a substitute.

Moth prevention, see **MOTHS**, p. 201

Goods lost at cleaners, see **BUDGETING AND KEEPING ACCOUNTS**, p. 85

STAIN REMOVAL

A freshly-made stain can usually be removed easily. Old ones will take more perseverance and may leave a slight mark. Always try the weaker chemicals first, as the stronger are more likely to damage the material. Remember that several short, weak applications of a chemical may be necessary and are less harmful than one long, strong one. Always rinse chemicals out of material immediately; then wash in the usual way.

Consider three things in stain removing: the kind of stain, its age, and the material.

Tea, coffee, perspiration, fruit: Fresh stains: Soak overnight in cold, softened water, then wash and bleach in the sunshine. Old stains: Rub in glycerine and leave for some hours before washing.

Ink stains: Fresh: Rub in lemon juice and salt. Old: On white linen or cotton—chlorine bleach. On silks, rayons—apply dilute permanganate of potash; then remove resulting brown stain with hydrogen peroxide to which a few drops of vinegar have been added. Coloured cottons—first use dilute permanganate of potash, then weak oxalic acid solution.

Blood: Soak in cold salt water before washing.

Scorch marks: Damp and bleach in sunshine. On white silk, use dilute hydrogen peroxide.

Greasy marks on non-washing material: Rub with carbon tetrachloride.

Oil paint: Turpentine.

Enamel or varnish: Amyl acetate (nail-polish remover).

Grass: Methyated spirit.

FURS

GENERAL CARE

Shake after wearing to remove dust. If they get wet, shake and then rub down with a clean cloth and hang up in a cool, airy place. Occasionally beat the back of furs with a cane. Clean fur by rubbing into it warm dry bran. Roll up for an hour or two, then shake or comb out. If the back of a fur collar is very greasy, clean it with carbon tetrachloride but do not let this penetrate the skin.

STORING

Good furs should be sent to cold storage if unwanted during the summer. If they are to be kept at home, wrap them in a moth-tight sealed parcel with some paradichlorobenzene crystals and store in a cool dry place. Special moth-proof bags can be obtained for storage, but it is advisable to shake out a fur coat frequently during the summer in case a moth or grub has been stored with the coat.

MENDING

EQUIPMENT

A good selection of needles, cottons, darning wools, buttons, press-studs, hooks and eyes, bias binding, scraps of materials, tape, linen floss, and elastic should be available as well as scissors, thimble, etc. An embroidery hoop is useful to hold the torn part of a large article.

DARNING BY MACHINE

Use linen floss to darn household linen. It can be done quickly on a sewing machine if you use special fittings. These are (1) a spring presser to replace the foot, (2) a small plate to cover the feed, and (3) an embroidery hoop to hold the material taut. The attachments must be those for your particular machine. As the plate covers the mechanical feed, you can move the material stretched in the hoop, backwards and forwards at will. It must be moved so that lines of stitches are worked across the hole with the weft of the material. The size of the stitch is regulated by the speed at which you move the material. A second set of stitches must be worked with the warp of the material. Lessons can be had from most sewing-machine shops.

TO MEND A TEAR

If in tweed or wool, place the torn part wrong side up over a pad of white paper. Draw the edges together with a thread of contrasting colour so that it can easily be removed, then darn closely with matching threads or threads unravelled from the seams.

In a thin material, buttonhole-stitch round the torn edge with matching silk. Draw the buttonholing together on the wrong side, and press.

PATCHING

Old clothes, household linen and cuttings from dressmaking should be kept for mending. Cut patches on the square of the material and large enough to cover the hole and surrounding worn part. The method of applying the patch depends on the article and material.

A 'calico' patch, used for household linen, thick underwear, overalls, etc., is very strong because it has two rows of stitches. Cut the patch on the square of the material. Turn a narrow inlay all round on the right side. Lay it in position on the wrong side of the article to be mended and tack so that patch and garment both lie flat and unstretched. Turn to the right side. Cut away the worn material, leaving a narrow edge of uniform width all round. Make little diagonal cuts to within $\frac{1}{4}$ in. of the corners. Turn in the edge and hem down neatly. Press.

Use a 'print' patch on thin or patterned material. Lay the patch with the edges turned in on the right side of the garment. Match the pattern and tack flat. If the worn place comes near a seam, undo a section so that the patch can be taken in. Stitch carefully all round. Cut away the worn part and buttonhole the rough edges on the inside. With woollen materials, patch from the back and do not turn in edges, but herringbone-stitch round all edges.

Re-inforce small boys' trousers, elbows of jerseys, socks, etc., before they go through to reduce the amount of mending.

Household Pests

DISCOURAGE pests as much as possible by never leaving food or crumbs exposed, by turning out all dark corners frequently, by keeping refuse in closed and frequently disinfected containers. If any pest is very bad, consult the Sanitary department of your Local Authority.

FLIES

These like dirt—and food. Every female killed in early spring means millions fewer flies throughout the season, so let the campaign start early. Keep everywhere scrupulously clean and give them no place to breed. Cover larder windows with gauze or muslin. Spray window sills, etc., with D.D.T. or Gammexane.

COCKROACHES

These like warm places, they are destructive, and they smell. A poisonous powder—1 oz. pyrethrum powder and 3 oz. sodium fluoride—should be sprinkled liberally round stoves and hot-water pipes at night. Food, children, and domestic animals must be kept well away. The powder and corpses should be swept up first thing, and the dose repeated each night, until the insects are cleared.

ANTS AND EARWIGS

Find their 'runs' and treat as for cockroaches. If the nest can be traced, pour paraffin or some paradichlorbenzine crystals into openings and cover them up.

SILVER FISH

These have nocturnal habits and live on starch (usually found about draining boards or among books). The proprietary brands of insecticide are usually effective, or prepare a mixture of 1 teaspoonful boric acid, 1 teaspoonful sodium fluoride, and 4 teaspoonsful flour and sprinkle it over where they are seen. Be careful to protect food.

FLEAS

'Human' fleas carried into a clean house will soon die. If they are stubborn, or if animals are infected, floors, pets' sleeping quarters, and pets, should be treated with Gammexane, or other insecticide not injurious to animals.

BUGS

These might travel to a clean house through pipes or cracks or

second-hand furniture. Sulphur fumigation, repeated after ten days, is the best way to get rid of them.

MOTHS

To prevent damage, keep dark corners frequently turned out and air heavy winter clothes, which must be scrupulously clean when put away, as often as possible during the summer. Soiled garments attract moths. Suits or coats can be moth-proofed, when dry-cleaned. When storing blankets, etc., wrap up and seal with gummed paper. Sprinkle crushed paradichlorobenzine crystals under carpets and in storing drawers and cupboards. If these have previously been infected, wash, sprinkle thickly with the crystals, seal the edges with sticky paper, and leave for some days to fumigate.

If moth gets into an upholstered chair, sprinkle $\frac{1}{4}$ lb. paradichlorobenzine crystals into the crevices and round the seat, etc. Cover with a sheet, tucked in well to cover up the whole chair, and leave for some days. Spray with an insecticide as a preventive. If a carpet has moth eggs and larva (it is the larva, little white maggots with pink heads, that eat the wool), clean thoroughly. Turn over the carpet so that the back of the infected part is exposed, cover it with a wet cloth, and iron with a very hot iron. The steam will kill any remaining eggs or maggots.

WASPS

Do not kill the queen wasps early in the year unless there is an undue number. Wasp young are fed on the young of more objectionable insects. In August, when the worker wasps are unemployed, they raid orchards and larders. Then hang bottles containing a spoonful of jam and water in the trees, and the wasps will be trapped. Place a jam-jar with the same mixture on larder or kitchen windowsills.

RATS AND MICE

A good cat will keep them down and discourage them from establishing themselves. Broken glass in the holes and traps in strategic positions help. Virus poison is most effective if there are many rats or mice. If they are coming from adjoining premises, neighbours should be asked to take action also, or the pest should be reported.

Furniture beetle or 'Wood-worm' (see **FURNITURE**, p. 137)

PART 7—MOTOR CARS, MOTOR CYCLES, BICYCLES, THE GARAGE AND GARDEN



Motor Cars

It is claimed that modern finishes will stand up to all sorts of cleaning methods, including such casual measures as rubbing off dirt and mud, but there's little doubt that washing down with water is the best treatment for the paintwork, whatever the finish. Present-day cellulose finishes are hard and durable, but remember that road grit is even harder. So the practice of dry-cleaning will in time produce the scratchy-looking appearance so frequently seen. As potential buyers are influenced by external appearances, take care that bodywork is cleaned before vehicles are offered for sale.

HOW TO CLEAN

When washing a car, the method used for the older coach-finish is hard to beat. Before getting down to the job, bear in mind that wet mud is far easier to remove than solidly caked layers, although before starting washing 'straight off the road', allow time for the bonnet sides to get quite cold. Also remember that jacking-up will help in getting at the wheels and brake-drums.

The ideal equipment is a brush and sponge, kept exclusively for the undersides of wings, chassis, axles, and wheels, with another sponge, the larger the better, and a chamois leather for use on the body only. The reason for this is that grease is always present around certain parts of the chassis and wheels and it wouldn't do at all to transfer any grease or oil on to the body.

Now to work, stage by stage, in the correct order. Start with the undersides of the wings, using full pressure from the hose, to wash off as much mud as possible before getting to work with the brush and reduced water pressure. Still using a steady flow of water, pass on to the chassis and axles with the brush and then on to the wheels, finishing off the latter with the sponge kept for that purpose. The body needs more care, and first of all, don't rub away vigorously with the sponge. Keep the sponge working all the time so that the dirt flows off with the water, which should be running freely at a low pressure. So keep on squeezing the sponge! When clean, soak and wring out the chamois leather and proceed lightly over the damp surface, moving in a fore-and-aft direction along the bonnet and

wings and up and down along the sides of the body. The leather will leave the surface dry, clean and polished. If desired, a suitable proprietary polish can be applied, following the maker's directions.

Soap and water are best for cleaning windows and windscreen, although metal-polish can be used. But be careful not to splash the paintwork, for soap and water leaves a nasty mark.

If running water is not available, work from buckets, but don't economise on the water. And however tempting it may seem in winter, *never* use warm water. After washing, try out the brakes separately before relying on them. Any water in the brake drums will seriously impair the efficiency of the brakes until the drums have dried out.

TROUBLES ON THE ROAD AND HOW TO AVOID THEM

TYRES, ignition or carburation are the causes, in the majority of cases, of troubles on the road, though transmission is responsible for a minor number. The fact that manufacturers still supply a spare tyre and tube, fitted for the sake of convenience to a spare wheel, is a decided pointer that tyre troubles are expected to occur. Unfortunately, other possible causes of a stoppage cannot be dealt with so easily and the owner-driver must be prepared to figure things out for himself unless assistance—and consequent paying out—is summoned without a further thought. But what if assistance cannot be obtained? If you know your car and the possible reasons why it won't go, remember there's a kit of tools supplied for such an occasion.

Prevention being better than cure, a regular schedule of care-and-maintenance will pay handsome dividends in minimizing the chance of trouble.

TYRES

These respond to regular attention so gratefully that they give in return many hundreds of miles of extra life. Once a week the pressure should be tested, for under-inflation is the No. 1 course of trouble. The modern tyre is built up of rubber and cord, and under-inflation imposes extra strains and stresses with every turn of the wheels. Hitting the kerb or passing over a road 'pot-hole' also distorts the whole tyre and leaves it badly strained. Under-inflation also sets up friction between the tyre and tube, and both will need speedy replacement. So maintain tyre pressures very carefully in accordance with the figures recommended by the makers and do it weekly, for even if mileage is negligible and the valve tight, pressure will still

be lost. The gauge will over-read if pressure is checked immediately after a run. Check pressure before starting out.

Attention to small cuts is another time- and money-saver, for the presence of water is deadly to the internal structure as it causes perishing. Water, and sharp substances, too, enter the smallest cut very readily, so as soon as the latter are seen, treat with a proprietary tyre-stopping, following the maker's instructions.

Avoid rapid acceleration and braking. Either practice is equally bad for the tyre treads, for a microscopic film of rubber is left on the road with each application. The life of a tyre is thus lessened very rapidly indeed.

In order to distribute the wear on all four tyres equally, change the wheels round periodically, changing the near-side rear wheel for the off-side front wheel and *vice versa*. To keep the spare wheel and tyre in good condition, keep all five wheels and tyres in circulation.

IGNITION

These troubles are often unpredictable. For instance, all the care and attention possible cannot safeguard against a burnt-out coil or faulty condenser. The battery, which may be considered the heart of the modern motor car, not only deteriorates if neglected, but becomes a potential source of breakdown. (For many years manufacturers delighted in housing the battery in the most inaccessible place possible, with the result that it was often left to take its chance. When at last trouble set in, a sorry state of affairs was often revealed.) For example, terminals acquire a deposit due to chemical action which forms an insulator capable of preventing the necessary flow of current. Keep the terminals clean, and after connecting the cables, smear the terminals with vaseline or grease. Keep the battery topped up with distilled water, for the plates must be kept covered. It's a good idea to have the battery serviced every year, preferably before winter sets in with its heavier demands on the starter and lighting. After being cleaned out and the acid renewed before being given a slow charge, the battery will be ready for every demand made.

Care and attention to the ignition system as a whole is neither lengthy nor involved. First, make sure that the contact-breaker points are kept clean and correctly adjusted to a gap of 0.012 inches when open. Clean the points with a petrol-soaked rag or sandpaper, not with a file or emery cloth. Incidentally, if the points are pitted and burnt-looking, suspect the condenser and, if faulty, renew. Every thousand miles, the bearing of the driving-shaft of the distributor and contact-breaker should be oiled with a few drops. Every six months, clean the sparking plugs and adjust the gap to the correct

clearance. Also examine all high-tension cables for any loose connection or loss of insulation. Periodically, examine the distributor cover for any signs of cracks. If cracked, renew at once.

CARBURATION

These troubles are usually unsuspected and the golden rule applying to the carburettor and to the petrol supply system is: 'Keep it clean!' Gauze filters are not fitted to the carburettor or petrol pump for the sake of appearances, so clean them regularly with a wire brush and petrol, but never with a rag. The carburettor itself is best left alone, for apart from a choked jet, it rarely fails in its duties, and the same may be said of electrical and mechanical fuel pumps. SU carburettors, however, should have the piston oiled regularly. Lack of acceleration and of power is often traced to a sticking piston. Concentrate on cleanliness and remember that just one drop of water in the petrol supply line means a stoppage—surprising as it may seem when a wad of rags is so often seen deputising for a petrol-tank filler cap.

TRANSMISSION

These troubles are caused by the clutch, gearbox, and back axle. The clutch needs adjusting, when the free movement of the clutch pedal has been reduced to about a quarter of an inch. It is then necessary to adjust the pedal so as to give a free movement of about $\frac{3}{8}$ in. measured at the pedal pad. This will provide the $\frac{1}{2}$ in. clearance required at the toggle ring inside the clutch housing. Adjustment on most models is readily accessible from underneath, so there is no need to remove the floorboards.

Do not attempt any experimental lubrication through the clutch inspection plate. Oil is the enemy of the clutch. And even though the practice is widespread, don't 'ride the clutch pedal' when driving. Keep the foot off the clutch pedal except when it is required.

GEARBOX

The gearbox needs flushing out and fresh lubricant added every 5,000 miles. The job is best undertaken immediately after coming off the road, for the lubricant will flow more easily on the removal of the gearbox drain plug. When empty, replace the plug and fill the gearbox with flushing oil, not paraffin as it has a tendency to cause rust. Jack up one of the rear wheels, start the engine, engage gear and allow to run for a few minutes at normal tick-over speed. The jacked-up wheel will rotate, but the car of course will not move. Then disengage gear, stop engine and release jack. Remove base plug and run out flushing oil. When all dripping has ceased, replace plug and refill with the correct gearbox lubricant.

Careless and noisy gear changes result in burred and chipped edges to both the sliding and fixed gearwheels and may result in force having to be applied to the gear-lever and an ever-noisy gear change. If gearbox troubles are noticed, do not attempt to undertake 'repairs'. The services of a competent garage should be sought if gears jump out of mesh, the gear-lever refuses to select a gear, or a continuous or intermittent noise occurs. Pre-selective gearboxes should always be serviced and repaired by accredited agents.

BACK AXLE

This needs flushing out and fresh lubricant added each year in order to remove specks of metal which have parted company from the gears inside. Deal with this in the same way as the gearbox. Drain out the old lubricant, but before flushing, make sure that the 'oil level' plug has been removed. When refilling with the specified lubricant, cease pouring when the 'oil level' plug orifice has been reached.

Any undue noise arising from the back axle is symptomatic. Adjustment can be made and wear taken up, but it is best to put the job in the hands of a garage. There is only one true position in which the crown wheel and pinion mesh correctly. If too tight, noise and wear will occur, while if the gears do not mesh closely enough, there is a danger that the teeth may break. With an old car, a noisy back axle usually means badly worn gears and differential pinions, and replacement is the only cure.

A broken half-shaft can be mystifying as all seems in order. The engine runs but the car will not move when the clutch is let in. If the propeller shaft can be seen to be turning, the trouble is at once confirmed, but if the shaft is enclosed, jack up first one and then the other road wheel with the engine switched off. Make sure the gearbox is not in neutral and then turn the wheel, when the resistance of the engine should be felt. If the wheel turns free, the half-shaft has broken and a new one should be fitted by a garage.

Leakage of the back axle lubricant into the brake drums means that the inner felt oil-retaining washer needs replacement, and again it should be replaced by a garage as quickly as possible, for the brakes will slip and lose their efficiency while the trouble persists.

Never place a jack under the back axle casing. Always put it under a spring pad, for the casing is often an alloy casting and, if once cracked, involves great expense.

MOTOR CAR LAW

THE motorist is required by law to be insured against third-party risks.

A person driving a motor car or motor cycle on the highway undertakes a legal duty to exercise care not to cause damage or injury to other persons using the road or to persons whose property adjoins the road. If, by neglect of this duty, any such damage or injury is caused, the driver is liable to pay compensation. A driver is not legally responsible for purely accidental occurrences.

Motor Cycles

HOW TO CLEAN

APART from the question of appearance, regular cleaning serves two purposes. First it provides the opportunity of checking over the machine for any loose nuts, and secondly, the preservation of the finish adds considerably to the second-hand value.

Before beginning to clean, block the air-intake of the carburettor with a clean rag, for dirt and water *might* find a way in. Brush out mud from inside the mudguards and then from the underside of engine and gearbox, finishing off with a paraffin-soaked rag so as to leave everything nice and bright. Use a sponge and water for removing mud and dirt from the paintwork and polish with a chamois leather or proprietary polish, if preferred.

Having really cleaned the machine, lightly coat the wheel rims and spokes with grease. Dirt will be held by the covering film so that dirt and grease will come off together when rubbed with a cloth, leaving the paintwork unmarked. If the plating is chromium, never use metal-polish. A little care and attention when filling-up with petrol will pay handsome dividends, as petrol is one of the worst enemies of paintwork. If allowed to slop over the tank top, unsightly whitish rings and spots will soon spoil the finest finish.

BREAKDOWNS ON THE ROAD

There are three main reasons why the engine may stop when on the road. However sudden the failure, it's quite an automatic mental process to memorise the signs shown just before the stoppage.

(1) If the engine suddenly cuts out, its ten to one that faulty ignition is the cause. Test for spark at plug points by laying plug on engine and operating kick-start. Examine all connections and leads from battery *via* the coil, or high-tension lead from magneto if fitted, to the plug. Clean plug if oil is present. All being in order and there is still no spark, clean—and adjust, if necessary—the points of contact-breaker inside distributor or magneto. If there is still no response, visit the nearest service station.

CARBURATION TROUBLE

(2) If, after erratic running, the engine stops, carburation trouble must be suspected. Try flooding carburettor and, if nothing happens, check petrol supply and piping. If petrol is reaching the carburettor, clean float chamber and jets. As a last resort, check the throttle control cable which may have parted.

PARTIAL ENGINE SEIZURE

(3) Should the engine slow down and appear to give a braking effect to the machine, shut the throttle and withdraw clutch as quickly as possible, because a partial engine seizure may have occurred; this is not a frequent source of trouble. Remove plug and pour about a filler-capful of engine oil into the cylinder. Keep on turning the engine with the kick-starter until it turns freely. Before driving home, check the lubrication system very carefully indeed. It is possible that a seizure of the gearbox may have happened, in which case remove the chain and push home.

Getting home 'on a piece of string' may be an exaggeration, but there's no doubt that a roll of insulating tape, a few pieces of wire, and a piece of chewing gum may be highly desirable items. Include them in the tool kit and they may save a long and exhaustive push. Insulating tape and wire will very often hold all sorts of loose parts until proper repairs can be carried out, and hastily chewed gum will retain the precious drops of petrol long enough for salvation to be reached!

CARE AND MAINTENANCE

The routine check-up of a motor cycle is quite straightforward. Regular inspection is needed only as follows: (1) loose nuts and bolts, (2) brakes, (3) chain adjustment and condition of chains, (4) control cables for signs of fraying, (5) tyres for correct pressure and clearance of flints, etc., (6) wiring and leads for soundness and absence of oil, (7) battery for topping-up, (8) petrol pipe unions, (9) gearbox lubrication, (10) lubrication of forks.

Items (1), (5), (6), (7), (8), (9), and (10) are quite foolproof and require no amplification. When adjusting brakes, always carry out this job with the wheel in question off the ground and free to rotate. Remember that it is just as necessary for the wheel to run perfectly freely as it is for the wheel to lock. When checking control cables, don't forget that cables can and should be lubricated. Remove cable at control end and slip on a short piece of rubber tubing and bind with a piece of wire. Slip the spout of a pressure oiler on the other end of the tubing, bind, and inject oil until it is seen emerging from the other end of the cable.

Probably the most important components, and very often the most neglected, are the chains. Apart from casual lubrication, proper servicing will lengthen their lives and ensure greater efficiency. Give the chains careful attention and each link will work as it should. Periodically, remove chains and soak in a paraffin bath, thoroughly brushing away all dirt. Next, put them in a tin of lubricating oil and stand the tin in a pan of hot water, heating the pan to boiling point and keeping on the boil for an hour or so. Never heat oil over an open flame direct—the fire brigade may be needed if it boils over! If any links now fail to flex easily, replace them. When re-fitting chains, remember that the open end of the spring clip should face away from the direction of travel of the chain.

To adjust the primary chain, slacken gearbox retaining bolts and slide back the gearbox by means of the screwed draw-bolt fitted on most models, or slide back by hand if necessary. There should be $\frac{3}{8}$ in. of up-and-down play in the primary chain. After repeated adjustments, check and adjust the clutch cable and gear-changing mechanism if a hand-change gearbox is fitted.

The secondary chain to the rear wheel is simply adjusted by slacking the hub spindle nuts and moving the wheel in its frame slots by means of the chain adjusters. There should be $\frac{3}{4}$ in. up-and-down play in the chain. Always re-adjust the rear brake as well and check alignment of the chain as it runs over the sprockets. It can be done quite easily, using a screwdriver to measure the distances between the wheel rim and the upper fork leg. The spaces on each side should of course be equal.

Finally, while on the subject of chains, don't fit a new chain on to old and worn sprockets. The sprockets must be renewed as well.

For Law and the Motorcyclist, see *MOTOR CAR LAW*, p. 206

Bicycles

CARE AND MAINTENANCE

DESIGNED to transport the 'world and his wife' simply and cheaply, the bicycle is one of the most easily maintained pieces of 'machinery' ever invented. Mechanically propelled vehicles may be suffering from all kinds of neglect, but still keep working. When the rider supplies the power himself, any loss of free and easy running is immediately noticed and the extra work isn't put up with any longer than can be helped!

Easy running is the important factor and the secret is care and maintenance of wheel bearings. If the bicycle has had a lot of use,

the removal of the wheels from the frame and examination of the bearings may bring about a decided improvement in free running. Having removed the wheels, examine the cones and cups for wear and cracks, being careful not to lose any of the ball-bearings when dismantling. See that the balls appear in good condition and that there are the correct number, that is, sufficient to form a circle without any gaps when in position. If replacement of worn parts seems unnecessary, pack the cups with grease and replace balls—the grease will hold them in position while re-assembling. When putting the wheels back into the frame, be careful to see that the front wheel is put in with the bearing adjuster, i.e. the loose cone which has two flat sides, on the left (the side opposite the chain). The position of the rear wheel is obvious because of the cog.

With the wheels in position, adjust the bearings before the hub spindle nuts are tightened. Use a cone spanner, inserted through the frame fork, to grip the two flat sides of the cone. Adjust until the wheel runs perfectly freely without any sign of play. Tighten the hub spindle nuts after seeing that the chain is properly adjusted and that the rear brake hasn't strayed from position.

Whenever the rear wheel is taken out of the frame, flushing the free-wheel with paraffin and lubricating it with cycle oil will keep it in good condition. Don't forget to give the chain an occasional beauty treatment as well. Soak it in paraffin and brush it absolutely clean. If there is any stiffness in any of the links, work them free. Now soak the chain in a bath of cycle oil, wipe off surplus oil and replace with the open end of the spring clip facing away from the direction of travel of the chain.

A rather common happening is for one of the cranks carrying the pedals to develop to-and-fro-play forward when passing the top centre and backward when passing the bottom centre. A new cotter-pin is the remedy and it is only a matter of minutes to tap out the old one and fit the new. Do it as soon as any play is noticed, for wear on the flat surface of the crank spindle is rapid once the fault has started.

The above treatment, plus regular lubrication of the pedals and steering head, will keep the cycle up to the mark and ensure many years of trouble-free and easy running.

The Garage

BUILDING A PRE-FABRICATED GARAGE

ALL THE many types of pre-fabricated or sectional garages now

obtainable, which can be erected by the handyman without too much difficulty, require a concrete base to form the floor. This is not included in the quoted price, though on it depends the structural stability of the garage.

Plans for a garage of this type must be deposited and approved in exactly the same way as for any other building (see *BUILDING A HOUSE*, p. 36), and permission for access from the road obtained. Pre-fabricated garages, however, are classed officially as 'temporary structures', and it is sometimes possible to obtain permission to erect them in positions where a permanent brick garage would not be allowed. On the other hand, in some areas they are not permissible at all.

Assembly instructions are issued for all reputable types. These entail adequate bolting-down to the concrete base, sealing of joints between sections and laying the roof sheeting. There are many 'snags' not at first visible to the amateur. All exposed ironwork must be properly protected against rust by suitable paint, and woodwork painted or creosoted. Aluminium is a material which overcomes these difficulties, as it is in itself weather-proof. Weather-proofing is, after structural stability, the most important factor; the most well-made sectionalized garage will fail unless this object is achieved.

BRICK GARAGES

These are not a job for the amateur. They are classed as 'permanent structures' and require exactly the same knowledge of construction as any other permanent building. Contrary to popular belief, there is no such thing as a 'standard brick garage', for which plans can be supplied. Each garage is a building on its own, requiring planning for its proposed position. The size, arrangement, roof pitch (or flat), can all vary to suit individual requirements. Advice on these should be obtained from someone qualified to undertake such work.

WATER SUPPLY FOR A GARAGE

The easiest arrangement is a stand-pipe taken from the incoming water main, or a supply pipe run underground from the house. If a water supply is provided for car-washing purposes, a paved area laid to fall to a central gully, which is connected to a drain or soak-away, is most desirable. Permission from the Water Undertaking to install a water supply to a garage is necessary, and an addition to the Water Rate is entailed.

The Garden

HOW TO DESIGN A GARDEN

THE most economical and satisfactory way to design a garden is to draw a scale plan, fill in the existing features and landmarks, and then put down the new sections that you want, or can have. If the plan looks right on paper it will turn out right in the actual construction. Paths, hedges, borders, a lawn, rockery, shrubbery, pool, vegetable and fruit sections, a miniature garden within the garden, such as a rose or iris, or whatever the ideas, they will fit in, or be difficult, as the case may be, according to their appearances upon a plan. The simplest way to do it is to buy graph paper that contains 64 squares (eight each way) to the square inch, and make each tiny square represent a square foot of the garden, i.e. scale $\frac{1}{4}$ in. = 1 ft. Put the north boundary at the top of the paper, and, if the house forms one of the boundaries, insert its wall and windows or doors, or if within the whole, insert its outline. Some people will also interest themselves in contours, but that is unnecessary. Commonsense is more important than such finicky details. For example, if the house is on a high point, a terrace is called for. By drawing in a terrace you will see that it should cover as much ground as the house itself to be in

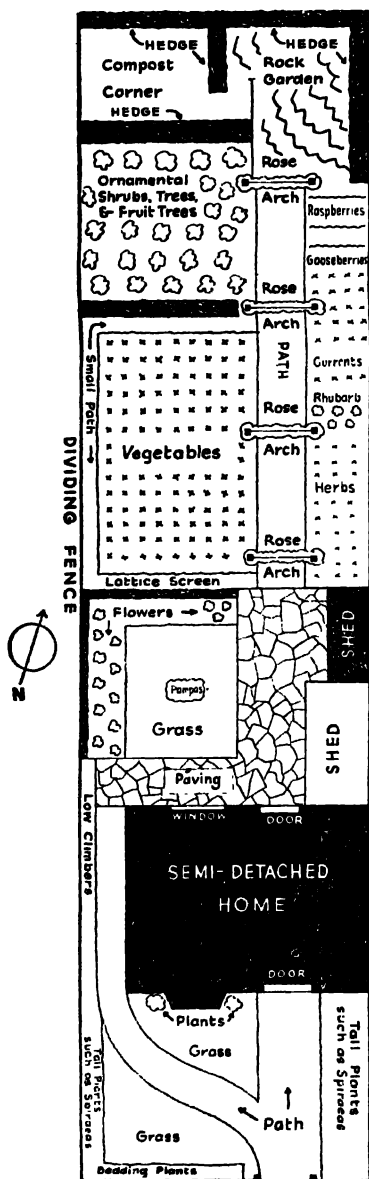


Fig. 62. How to plan a garden; design for a very narrow long garden to a semi-detached house

the right proportion. Incidentally, 'proportion' is the keyword to the whole plan. On the other hand, a house in the low position will ask for a sunken court, 'in proportion'. A bank on one side or other,

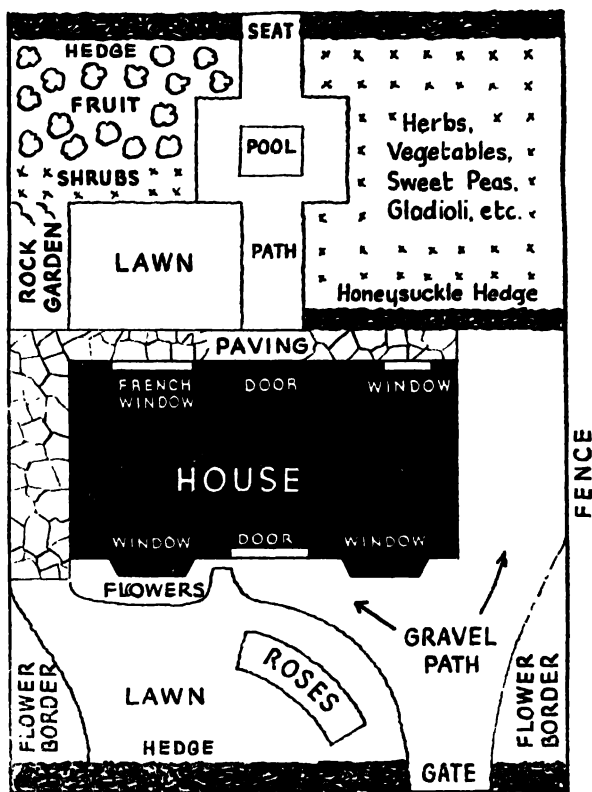


Fig. 63. A small garden surrounding a detached house

or at the foot of the garden, invites a rock garden. A sloping garden can either be kept at the slope, or be divided into levels by dry walls and some steps. Bear such facts in mind, and then sketch in whatever is needed to scale and you will see whether they are practicable or not. (Figs. 62, 63.)

Here are some often forgotten essentials about the various features:

PATHS

A wide path makes a garden look expansive, whereas a narrow one seems to lengthen it. A winding path, with no apparent cause

for its winding, is a bad thing. If it curves, connive a cause for its curving. The construction of any sort of path is an expensive business. Rough core bottom and a good gravel top, dressed with bitumen and finished with fine gravel dressings, will look natural and nice. Paving stones are too expensive at 12s. 6d. a square yard, but satisfactory paths can be made with new forms of concrete paving squares at a less ridiculous cost. On heavy soil it is best to bed them in sand or ashes, to stop crackings and liftings. In the kitchen garden the paths can be made solely of ashes providing tile or concrete edges are given.

HEDGES

People generally make a mistake about hedges; wanting something that will grow quickly, they forget that it will continue growing even more quickly when the desired height has been reached. Only the privet will grow quickly to a desirable height and then remains sturdy. The oval-leaved type is the best. Allow a width of 3 ft in your plan for its development. Another good boundary subject is holly. Most of the cuprussuses grow too quickly after they get to hedge size and are addicted to becoming gappy along the bottoms. For an intersecting hedge, or the back of a herbaceous border, the Japanese honeysuckle (*Lonicera nitida*) is good, particularly if it is kept clipped to the shape of an inverted wedge, and some stakes inserted in its body to keep it steady. A hedge of Zephrine Drouhin roses secured to low wires will make a nice novelty—inside the garden. Other possibilities are beech, hornbeam, yew, box, laurel, evergreen oak, quickthorn, rosemary, and some of the berberises. Incidentally, the right time to prune or clip all hedges is when the weather is dull and showery, and they appear to need it. In hot weather they are apt to scorch.

LAWNS

To seed or to turf is the eternal question. It takes three turves costing about sixpence apiece to cover a yard super, or alternatively, two ounces of grass seed, the best being five shillings a pound. Seed for nice fine soil that can be worked down into a fine bed, and turf for less hospitable ground, is probably soundest. In each case the site must be prepared in a thorough manner, preferably in the summer if seed is to be used. Then if allowed to settle down before autumn, and the surface hoed as often as necessary to kill weed seedlings, sowing down can be completed in September-October. Turfing can be carried out at any time, and almost immediately after preparation, as the weed seed will be smothered.

If a bank has to be covered, see that it slopes sufficiently for it to

be mowed. Generally speaking, level grass is the more impressive and easier to keep up.

Lawn upkeep is something more than rolling and mowing. Grass should be fed each spring with a special lawn food, worked into the soil by making artificial 'worm-holes' with a fork. And if weeds are troublesome, a dressing or two with the proprietary selective weed-killers makes that part of maintenance more easy. A lovely lawn makes a beautiful garden, but a bad unkempt uneven one inevitably mars its surroundings.

Where there are trees or semi-wild shrubs, there will be an invitation to have a covering of rough grass, planted with bulbs—chiefly narcissi and daffodils. There is only one drawback. The grass must not be cut until the foliage of the bulbs has completely died down, or they will cease to flower. To plant the bulbs, scatter them willy-nilly over the grass and then plant each one with a trowel, exactly where it falls—to give that natural look.

SHRUBBERY

The old-fashioned reason for a shrubbery was to have it keep out prying eyes. It can still serve that purpose, but it can also be a thing of extreme beauty and interest. If possible, go to a nursery and look at the specimen shrubs at various times of the year, and get advice about planting, pruning and distances. Soil is a deciding factor in the type of shrubs. Where it is lime-free and full of peat and leafmould and has plenty of drainage, the rhododendrons, azaleas, heaths, and kalmias thrive, remaining sturdy through the years. Interplanted with choice lilies, you have the acme of gardening with the minimum of effort.

CLIMBERS

There are very few true climbers, the majority needing supports and training. They do no harm to any wall providing the right supports are given. Nothing supersedes horizontal wires fitted to eyes that are knocked in at the ends. (Fig. 64.) Once installed, they make training easy and look neat. The chief

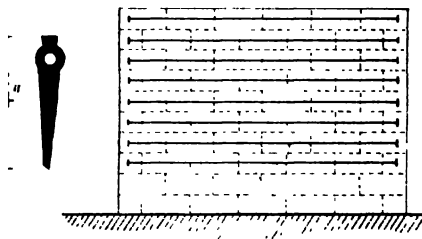


Fig. 64. Horizontal wires fitted to two eyes, knocked in at the end, are excellent for 'climbers'

consideration when selecting climbers from a catalogue is to have them according to size of site and to choose those that prefer the right aspects. A really good catalogue will give all the information.

ROCK GARDENS

Rock gardens can be made on island sites if not built too high, but are best where there is a background. Preferably, they should be an idea put into shape—such as an outcrop of rock from a hidden strata. If the stone has to be brought in, Westmorland and Cumberland weather and waterworn lumps are the best to lay in harmony. Place chunks together so that they look as though they had been whole once and had become partially disintegrated, the rock plants covering part of the crevices. And if water is made to flow over a rock garden, endeavour to have it in a valley where it flows naturally to a pool that looks as if it has become the soak-away at the end of the rock formation. The best position is as far away from the house as possible. A rock garden is an informal affair, whereas the house cannot be other than formal and it is difficult to blend the two.

POOLS

A formal pool is quite nice near the house, the one thing to avoid being the sloping sides that you sometimes see. If possible, have walls

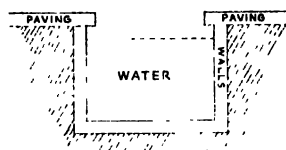


Fig. 65. Upright walls and a paving surround that slightly overlaps the edge are best for a garden pool

that are upright, and then have a paving surround that slightly overlaps the edges and all is well. (Fig. 65.) If you have fish in such a pool, place in it a covering of stones under which the fish may get should they be worried by birds. It is surprising how often that happens. If water-lilies are wanted, take care to get the varieties that will grow at the depth planted. Most of them need

to be about 2 ft below the surface, but the pigmy varieties only need 18 in. (See also BUILDING A GARDEN POND, p. 226.)

PERGOLAS

Pergolas look well in a garden providing they are well placed, not too flimsy and built proportionately to the general character of the garden.

STEPS

Steps are impressive if they are landscaped, rather than built unimaginatively, with no relationship to the surroundings. They may project into the lower level, or be inset in the upper level, or

there may be a compromise, no matter the pattern, providing the design is good. Aim at wide comfortable treads, each with an overhanging eave as it were, and with only a shallow lift to each. (Fig. 66.)

FLOWERS

BUT when all is said and done, it is the flowers that make a garden. They are the residents and the garden is their home. You will not find happy people in a real slum, neither will normal folk enjoy the large comfortable mansion. It is all a matter of 'proportion' and right relationship.

When choosing from the hundreds of possible floral candidates for a garden you not only select those you favour, but you take care not to mix that those are in disharmony. That is why we have the hardy flowers border of easy-growing perennials; the summer and spring 'bedders'; the special beds for roses and irises and the rest; and a special place in the fruit or vegetable plot for pet gladioli, or sweet peas. To the beginner the vast and bewildering choice must be an enigma. The way to choose them for a rock garden is to visit shows and nurseries and select, like you do good books. It is the same with shrubs. Plants for a hardy flower border that blooms throughout many months can be selected from a catalogue, the only difficulty being the profusion of choice. Here is a

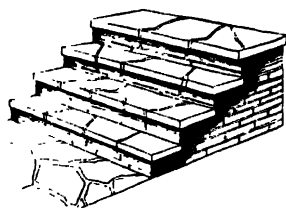


Fig. 66. In garden steps, aim at wide, comfortable treads, with only a shallow lift to each

Select List of Perennials For a Hardy Flower Border.

<i>Name</i>	<i>Variety</i>	<i>Colour</i>		<i>Season</i>
<i>Achillea Eupatorium</i>	Parker's Variety	Yellow	4 ft	July-Sept.
<i>Anchusa italica</i>	Dropmore	Blue	4 ft	June-July
<i>Anemone japonica</i>	Mont Rose	Pink	30 in.	Aug.-Sept.
<i>Aquilegia longissima</i>	Long-spurred hybrids	Yellow	30 in.	May-Aug.
<i>Aster amellus</i> , and others	Many varieties	Blue & pink	6 in. to 6 ft	Aug.-Oct.
<i>Campanula persicifolia</i>	Telham Beauty	Blue	3 ft	July-Sept.
<i>Chrysanthemum maximum</i> (Large Ox-eye)	Mayfield Giant	White	4 ft	July-Aug.
<i>Delphinium belladonna</i> (and others)	Very many varieties	Blue & white	6 ft	June-Aug.
<i>Erigeron mucronata</i>	Quakeress	Lavender-pink	2 ft	June-Aug.
<i>Geum coccineum</i>	Mrs Bradshaw	Scarlet	2 ft	June-Sept.
<i>Gypsophila paniculata</i>	Bristol Fairy	White	3 ft	June-Sept.

<i>Name</i>	<i>Variety</i>	<i>Colour</i>	<i>Ht.</i>	<i>Season</i>
<i>Helenium autumnale</i> (and many others)	Very many varieties	Yellow & red	2-7 ft	June-Oct.
<i>Helianthus multiflorus</i> (Perennial Sunflower)	Loddon Gold	Yellow	5 ft	Sept-Oct.
<i>Heliopsis scabra</i>	—	Yellow	4 ft	July-Sept.
<i>Heuchera sanguinea</i>	Firefly	Scarlet	2 ft	June-Aug.
<i>Iris germanica</i>	Many varieties	Several colours	3 ft	June
<i>Lupinus polyphyllus</i>	Russell Seedlings	Various	4 ft	June-Aug.
<i>Monarda didyma</i>	Cambridge Scarlet	Scarlet	3 ft	July-Sept.
<i>Montbretia rosea</i>	—	Deep Rose	30 in.	August
<i>Paeonia officinalis</i>	Many varieties	Many shades of red & pink	3 ft	May-June
<i>Phlox decussata</i>	Many varieties	Many colours	2 ft	Aug.-Sept.
<i>Pyrethrum roseum</i>	Many varieties	Many colours	30 in.	May-June
<i>Rudbeckia laciniata</i>	Golden Glow	Yellow	6 ft	Aug.-Oct.
<i>Salvia virgata nemorosa</i>		Purple	3 ft	July-Aug.
<i>Scabiosa caucasica</i>	Clive Greaves	Blue	2 ft	June-Oct.
<i>Sidalcea spicata</i>	Sussex Beauty	Pink	3 ft	July-Aug.
<i>Solidago virgaurea</i>	Golden Wings	Yellow	6 ft	August
<i>Trollius europeus</i>	Orange Globe	Orange	2 ft	May-June
<i>Veronica spicata</i>	Several varieties	Blue	2 ft	July-Aug.

Of course, there are many more, but these comprise the most useful and lasting and they will blend together in a mixed border. Arrange such a border so that the tallest plants are along the back and the lowest in front, but do not make them like a formation of soldiers. Have an undulating effect, with roundish groups of half a dozen plants of a kind in each group. For example, have 4 ft. tall back row plants with others in front of them in rightful proportions in one part with very tall back plants grading down in front to the medium and the not-so-dwarf in another.

BEDDING PLANTS

Most front gardens have beds that need filling twice yearly—spring and autumn. Uniform planting, with bold splashes of colour, is more effective and telling than any fanciful attempts at being novel. Because of this, it is well to have nicely sifted fine soil, containing leafmould, even if it has to be bought, for once there it will remain through the years and it makes bedding so easy. You simply take out the old plants, dig the ground, putting in some bonemeal or complete fertilizer, and replant right away. Mark out the rows with

sticks and plant to measurement all the while, a square foot apart in all directions being a usual distance.

For Autumn (October) planting, there is a choice of wallflowers; forget-me-nots; cheiranthuses; polyanthuses; and bulbs, chiefly tulips. Early-flowering tulips make excellent splashes of colour in beds by themselves, but May-flowering and cottage varieties look well with wallflowers or forget-me-nots. (Fig. 67.) In fact, a carpet

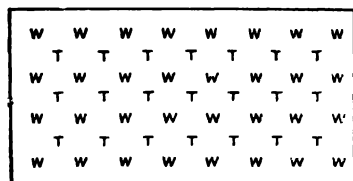


Fig. 67. A plan for a bed of wallflowers and tulips

of forget-me-nots out of which are growing Bartigon or Princess Elizabeth tulips is a sight that everyone admires. When dealing with autumn bedding, see that the wallflowers are nicely dwarf and bonny, neither leggy nor too old, nor, on the other hand, too small. Forget-me-nots should be nice stocky plants, and polyanthus should be just about the size that

you can grasp the root in the hand. Plenty of root in proportion to the top is a good rule. If possible, finish planting by the middle of October, so that plants become established before the rough weather begins. An exception is bedding tulips. In November put them 4 in. or 5 in. deep, and place sand under each bulb if the soil is heavy.

In the late spring, after the tulips and wallflowers and what-not have given their display, they must give way to the new bedding plants for the summer show. Lift tulips carefully and lay in a trench elsewhere until their foliage dies down, when the bulbs can be collected and stored, and then replanted in a back border the next season for cutting. Discard wallflowers and forget-me-nots, it being best to get new plants the next season. Polyanthuses can be lifted intact and replanted in a shady border for the summer, taking them up again in the next October for wherever wanted, dividing the largest plants.

For the summer, there are several types of bedding plants. First come the annuals and the half-hardy annuals that make a good display, particularly if the summer is a warm one. Alyssum, China asters, stocks, marigolds, nemesias, and zinnias are typical half-hardy annuals raised from seed sown in a greenhouse during March, to be ready for the garden in late May. These are often sold on market stalls during April—far too early—and die, killing the enthusiasm of thousands of would-be gardeners every year. Order the plants in April, but do not accept delivery before the end of May.

The second group of summer bedders comprise January-sown perennials such as antirrhinums, 'annual' or marguerite carnations,

lobelias, petunias, salvias of the 'Zurich type', and particularly fibrous-rooted begonias, such as are seen in public parks. They make the best bedding plants, once coming into flower, lasting throughout the season.

The third group of summer bedding plants comprise perennials generally propagated by the roots, or by cuttings that have to be given winter protection. Among them are geraniums, heliotrope, dahlias, chrysanthemums, tuberous begonias and hydrangeas. These are generally more expensive and call for a greenhouse to keep them in during winter and to use for propagating new stocks.

FLOWERS FOR CUTTING

Apart from flowers for display, most home-makers like to have some for cutting.

The best hardy annuals and half-hardy annuals are: China asters, calendulas, annual chrysanthemums, clarkia, cosmos, godetias, gypsophila, larkspur, nigella, sweet scabious, sweet sultan, stocks, sweet peas and zinnias.

The best easy-growing perennials are: achillea, alstromeria, aquilegia, catananche, centaurea, *Chrysanthemum maximum*, delphinium, erigeron, gaillardia, helenium, heliopsis, Michaelmas daisy, peony, phlox, iceland poppy, pyrethrum, rudbeckia, scabious (perennial), golden rod, and sweet williams.

The best easy-growing bulbs are corms or tubers for cutting: anemones, belladonna lily, daffodils, grape hyacinths, gladioli, Spanish, Dutch and English irises, montbretias, narcissi, ranunculuses, scillas and tulips.

BULBS FOR FORCING

Nearly everyone tries to grow bulbs for forcing in bowls and pots, striving to have them in flower from Christmas until the outdoor daffodils flower. And so many fail because they try to make them grow in a too-warm greenhouse or room. Forced bulbs should go through the same phases as they would outdoors, though each phase should be shorter. For example, a cool preliminary period, followed by a slightly warmer condition and, finally, a warmish room to bring them out. For succession, choose varieties that will respond proportionately, or those that have had some of the preliminary treatment given them by the suppliers. Generally, the earliest are not as fulsome and good as the later ones. The first narcissi are paper white; the first hyacinths are Roman, and the first tulips the Duc van Tholl varieties. These will blossom in December and January.

All should be planted as early in the autumn as possible in fibre or fine soil in bowls or pots. If fibre is used, damp it and break down

before use, sprinkling charcoal in the bottom of bowls without drainage holes. Plant the bulbs so that they just fail to touch one another and so that their tips stick above the top of the fibre, or soil, in the bowls or pots. Fibre is best for bowls, and soil for drained pots or boxes. After potting, place these receptacles on the ground upon the north side of a wall (Fig. 68) or in a very cool place, and cover them with 6 in. of very fine soil, ashes,

or fibre, thus making the tips of the bulbs at least 5 in. below the surface. In late November, examine a few to see how they are growing, and when growths are about 1 in. high, transfer to the coolest room or greenhouse, shading them until the tops have greened. After that gradually increase warmth until they begin to blossom. Keep hyacinths in almost complete darkness until the flower truss buds are above the rim of the

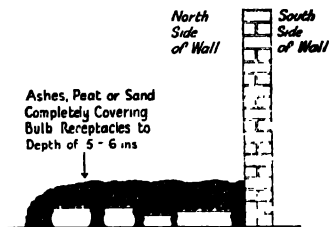


Fig. 68. Place the bowls of bulbs for forcing in a very cool place and cover with 6 ins. of fine soil or ashes

bulb or they will become dwarfed. Daffodils are less troublesome. Late flowering tulips will fail if forced too quickly. It is possible to place bulbs in the howls in a dark cupboard, or a cellar, providing the place is cool, but the outdoor covering with ashes is best.

Always give plenty of water, especially where there is drainage. To water bulbs growing in fibre in fancy vases, water liberally, fairly often, and turn the bowls on their sides for a few minutes afterwards and allow surplus water to drain away. These simple rules will bring first-class results, whereas too much warmth will only lead to disappointment.

Room plants, see GROWING PLANTS IN THE HOME, p. 235.

THE FRUIT GARDEN

THE right variety of almost every sort of fruit is necessary to have successful crops in small gardens. The two problems are pollination and size. Many fruits are self-sterile and should be avoided. Here is a list of the best two of each for a restricted space: *Apple*—James Grieve and Lane's Prince Albert. *Cherry*—Late Duke and Morello. *Blackcurrant*—Mendip Cross and Westwick choice. *Redcurrant*—Laxton's No. 1 and Versailles. *Gooseberry*—Lancashire Lad and Leveller. *Peach*—Amsden June and Peregrine. *Pear*—Conference and William's Bon Chretien. *Plum*—Belle de Louvain and Victoria. *Raspberry*—Malling Promise and Lloyd George. *Strawberry*—Climax and Cambridge 422.

Strawberries are best planted in July and August. All other fruits can be planted throughout autumn and winter—November being the best month. After planting, cut back drastically all raspberries and blackcurrants, but not gooseberries or redcurrants or any of the tree fruits.

THE VEGETABLE GARDEN

THE vegetable garden is always best when kept to a formal shape, and separated from the fruit section. Catch-crops can be grown between fruit trees and bushes while they are young, but the chief vegetables need an open position. Good cultivation, of course, is essential, and manures and fertilizers must be applied if crops are to be worthwhile.

In small gardens it will be impossible to grow all household needs. Lettuces should be considered of first-rate importance. Rhubarb and herbs are also superior when gathered as fresh as possible. Beans, peas, leeks, marrows, radishes, spinach, and early potatoes are very welcome. Tomatoes should be grown where there is a warm corner. Crops not so good are beet, practically all greenstuff, such as cabbages; carrots, celery, onions, parsnips, and maincrop potatoes; these being inexpensive in the shops and of good quality.

Instructions when to sow, and how, are given upon the packets, but how to prepare the ground, which determines results, is ignored. Deep digging in the autumn, and the addition of manure and fertilizers appropriate to the crop, are the first essentials. Use organic manures and fertilizers whenever possible, such as farm dung, composted garden refuse, bonemeal, hop manure, rape meal, fish manure, and guano, which derive from vegetation and animal life. Inert fertilizers, such as sulphate of ammonia, superphosphate of lime, sulphate of potash, and such-like are stronger in analysis and generally cheaper, but should only be used with manures. Generally, leaf-producing vegetables need nitrogen, therefore, use a fertilizer that contains a high percentage of that for them. Phosphates are necessary for crops that produce seeds and fruits, such as peas. Potash is good for almost anything, being a 'conditioner', as it were. All fertilizers should have the analysis printed upon the container and should be studied intelligently.

Lime is essential in the kitchen garden. A good dressing once every three years should suffice. Hydrated lime is more suitable than ground lime or powdered chalk. Apply in autumn and spring.

Wood ashes supply potash, but they should be spread over the garden before they become wet, or their goodness is wasted. Soot contains nitrogen and is a deterrent to slugs and insects. It should be

exposed to the air before use, but not allowed to become wet, or it spoils.

Sodium chlorate is a strong weedkiller that can be used on the garden if no crops are needed for a further year. It is generally stirred into cold water and sprayed over the weeds.

GARDENING TOOLS AND IMPLEMENTS

It is too easy to waste money on bad tools, as well as upon uneconomical implements. The aim should be the happy mean.

For the essential spade, get one of smallish size with a shiny blade. It makes work easy and delightful, and a pride should be taken in its appearance, which goes for all the rest. After use, wipe tools clean before rubbing over with an oily rag. Waste from the sump of a car is good enough. A shiny trowel is an absolute necessity. Choose a fork with square longish tines that are semi-shiny, rather than with flat dull ones that break easily. A good quality border fork, or a hand-fork, completes this part of the outfit. For hoeing, have a Dutch type with a 6 in. blade, and for vegetable growing operations, such as earthing-up potatoes, a swan-necked draw pattern with a 5 in. blade. The rake should have ten or less strongish long teeth, rather than many shallow ones. A springbok wire rake is useful for tearing out rubbish from lawns and for covering seeds. All these long-handled tools should have socket eyes at the lower ends, rather than furls and spikes that quickly come adrift. (See Fig. 69.)

For the small garden, a set of Sussex trug baskets can be used for every purpose. If a barrow is wanted, one with a pneumatic-tyred wheel is a sound investment. It lasts a lifetime, and can easily be pushed across the garden without creating much impression. Make a dibber by

sharpening the broken part of an old spade or fork handle, and a garden line from a length of cord wound on to a stake.

Lawn owners will have a special problem. A roller mower is

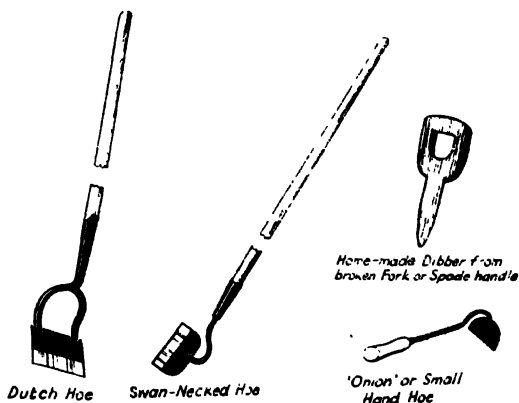


Fig. 69. Garden tools, the essentials

better than a skeleton type, and saves the expense of the unnecessary lawn roller. A pair of edging shears are essential, but an edging iron is only wanted once a year and a sharp spade can be made to serve the purpose. For those with a lot of lawn, the new electric mowers that are plugged in like vacuum cleaners are surprisingly modest in price and worth investigation.

Rose and shrub growers need secateurs. Have the type with the single knife that clamps on to a solid face, rather than the double-bladed cheaper sort. And if a pruning saw is needed for fruit trees, choose one with only one sawing edge. A two edged-saw is bad.

Long-lasting galvanized water-cans rather than tin ones that quickly rust pay every time. The finest, with perfect roses, are made of aluminium. For an all-purpose syringe, get a light sprayer with a hose that can be dropped into a pail of water or insecticide.

THE GARDENER'S MEDICAL CHEST

EVERY garden has its troubles and the gardener should have a stock of antidotes on hand for emergencies. Pests and other troubles may be general or specific in their attacks. Chief among the general pests are slugs and snails. There are several excellent proprietary slug foods, chiefly containing meta. This can be bought in the original state from chemists, be crushed into powder, mixed with bran, and lumps of it placed upon the garden during moist muggy evenings. In wet weather, place a tile or piece of brick over the mixture and examine daily. It kills these pests, but it is best to gather them up.

Moles are often troublesome on lawns. Get a few lumps of carbide from a garage and place them here and there inside their runs. It will often drive them away.

Ants can be dealt with by powder ant-killer, which has merely to be sprinkled over the places where they congregate, while for green-flies and such like 'plant lice' use a nicotine or derris insecticide; derris upon edible things, and nicotine where it is less necessary to be particular.

Naphthalene dug into the soil just before planting time will disturb wireworms, cutworms and leather-jackets, while trapping with pieces of carrot, examining and removing daily, is the surest method of clearing them. Cutworms can often be caught among young lettuces. When you see a plant half dead, pull it up, and stir the soil around the root. The fat horrible cutworm will generally be there.

Mildew attacks many things. Once it is established nothing can clear it, but it can be prevented by spraying in the appropriate season with a proprietary copper compound. There should always

be some of this in the store cupboard. Upon certain ground crops, such as onions, dust with sulphur in late summer.

Other special stocks for specific pests should be on hand: lime-sulphur for spring and summer spraying of fruit trees; tar oil for spraying the same trees in winter; Gammexane dust for the flea beetle that attacks the cabbage family in the baby stage. There should also be a 'wetttable powder' to mix with the insecticides to make them adhere to the plants.

THE GARDENER'S LIBRARY

THE gardening notes in this book are intended to be no more than indicators to success, and a small library of essential reference volumes should always be on hand. Among the most useful are the Ministry of Agriculture Bulletins, a list and prices of which can be obtained from H.M. Stationery Office, York House, Kingsway, London W.C.2. These Bulletins, which are really paper-covered books, deal with each subject thoroughly. For instance, Bulletin 95 is about strawberries, contains forty largish pages and costs 2s.

BORROWING TOOLS, ETC.: LEGAL ASPECT

If your neighbour borrows an article or implement he is responsible for its safety and must return it to you in as good condition as it was when you lent it.

Trees overhanging a neighbour's garden, see NUISANCE, p. 20.

BRICKS AND THEIR USE IN THE GARDEN

BRICKS for the garden paving should be hard and well-burnt. For walling, except for copings and steps, bricks of poorer quality than those used for house walling will suffice. Remember, though, that if garden walling is introduced for the purpose of retaining earth, such as in terrace work or on sloping sites, it must be strong enough for this purpose, and a good foundation is essential. Otherwise the pressure of the soil will cause the wall to bulge and eventually collapse. Such a failure is difficult and costly to put right, entailing a large amount of shifting of earth.

Soft bricks will not stand up to hard wear, are easily attacked by frost, and tend to disintegrate. Local 'stock' bricks, if available, are the most suitable and effective. The yellow 'London Stocks' are an excellent type for garden work, but they are fairly costly. Chief aims in garden brickwork are: (1) structural soundness, (2) elimination of danger from slipperiness in wet or frosty weather, (3) harmony in colour effect.

There are several proprietary makes of garden paving blocks, obtainable in a range of colours, which have proved reliable for both dwarf walling and paving. Do not expect them to replace brickwork for retaining walls, as they are not suitable.

CRAZY PAVING

For this purpose, genuine flags are much the best proposition. They are durable, not too regular in shape and weather into a soft mellow colour. As a substitute, pre-cast paving blocks are useful, but it is not possible to avoid the strictly formal and somewhat artificial effects which they produce.

Crazy paving should be laid on a well-rammed and levelled surface, and if jointed, the mortar should be fairly weak, otherwise it will shrink and crack. Do not strive for too formal a treatment of crazy paving. Any attempt to 'force' a pattern is immediately apparent and defeats the object of this type of paving.

BUILDING A GARDEN POND

A GARDEN pond must be lined inside with an impervious material, such as water-repellent cement rendering, to retain the water. The smooth surface of this material helps to keep the pond clean. The bottom and sides of the pond must be strong and well-built, in stone, hard sound bricks, or concrete blocks, each of which consolidates the ground surrounding it. Ensure that the pond can be, and is, drained and cleaned out each year, or be prepared for the smell of paraffin when its application to the surface to keep down gnats and mosquitos becomes necessary. (See also POOLS, p. 216)

PART 8—THE HOME IN GENERAL



Periodic Overhaul of a House

THE EXTERIOR

THE ROOF

Examine first the roof, looking for cracked, broken or dislodged tiles or slates, which may need the attention of the tiler. The pointing of the ridge and the joints of the brickwork in the chimney stack may also need renewing. The 'flashings' (metal coverings to the joints between brickwork and roof covering) should be tucked into the brick joints on one edge, the other edge lying under or on the tiles. In old buildings, or as the result of severe frost, the lead (or zinc) may have worked clear of the mortar joint, leaving a vulnerable point for the entry of water. Similarly, the lead or zinc lying on the tiles may have curled up, and need dressing down flat again.

GUTTERS

These may be choked with leaves and grit. Another cause of blocking gutters is the undue growth of creepers trained against the walls of the house, or birds' nests, particularly at the tops of rain-water pipes. (See ROOFS, p. 88)

Check also the level of the gutters. Gutters are designed to fall towards the downpipes, the total length of the gutter being divided into approximately equal portions between the down pipes. Some lengths of gutter may have dropped due to failure of the supporting brackets; the rainwater will collect in such lengths and eventually overflow. The gutter should be restored to its correct level by renewing the support or providing an additional support. Some lengths of gutter may be cracked and need complete renewal.

Next, examine the pipes themselves to see whether any of them are cracked. A cracked pipe can be detected by tapping it with a light hammer or any other handy tool. A sound pipe will give a dull response, a cracked one will ring hollowly. The pipe fixings, too, may be faulty, because the nails have pulled away from the brickwork, causing the pipe to drop out of position. When inspecting the downpipes do not overlook the 'shoe', or open end of the pipe at the bottom, where it discharges over the gully, or the gully itself. Leaves and rubbish often collect in the 'shoe' and in the gully grating.

These should both be cleaned out, leaving a clear passage for the water.

WALLS

Look out for any signs of cracks due to settlement, faulty joints or bulges, or signs of damp. Slight cracks may not be serious, but any near the angles of the building should be carefully watched, and expert advice should be sought if they develop. Bulging brickwork, if treated in the early stages, can be repaired or strengthened, but here again get expert advice.

One frequent cause of damp walls is the gradual piling up of earth in flower beds against the walls. This is often a consequence of enthusiastic but misguided gardening. In course of time the earth reaches a level above the damp-proof course, and the wall becomes saturated with moisture creeping up from the mound of earth. (The damp-proof course shows on the wall face as a much wider joint than the normal.) The earth should be cleared away from the wall, so that it is at least 6 in., and preferably more, below the damp-proof course. Another cause of damp walls is an open joint between any paving around the house and the vertical brickwork, particularly if the paving falls towards the house, forming a natural channel for rainwater. Such gaps should be pointed up with cement.

Airbricks, which ventilate the underside of the ground floor, should be cleared out. Here again, the earth in flower beds may have encroached upon them; dry rot is likely if this is allowed to continue.

External painting is a vital contribution to the upkeep of a house, as a preservative measure, quite regardless of appearance.

Window and door frames may be rotted—doors at the foot of the jambs and windows at the sill. Any such places need urgent treatment. The same applies particularly to genuine half-timbered work.

Boundary fences can be a constant worry. Rotted posts may cause the complete collapse of a section of the fencing. More often than not the fencing falls outward, causing annoyance to the adjoining owner. Creosote or paint applied in time may save considerable later expense.

THE INTERIOR

AGAIN starting at the top of the house, take a look at the cold water storage cistern. In all probability there will be a collection of grime at the bottom. The tank should be emptied once a year, and cleaned out, if at all necessary. Be careful to drain off *before* the sediment at the bottom is disturbed, otherwise it will get into the pipes and possibly block them. A word of warning here. It is most impor-

tant that none of the taps should be opened while the tank is empty, lest air should be drawn into the pipes and cause an air-lock.

Take this opportunity of checking over the provisions against frost, such as an additional covering to the tank itself, and lagging of pipes in the roof.

Coming down to the rooms, look for any signs of damp and trace the cause if you can, or seek expert advice. Likely places are the chimney breast, due to faulty flashings (see p. 227) under and around windows particularly below the sill, and in cupboards, especially the ones you normally keep locked up! If there are any signs of damp here, an easy, and often most effective, remedy is to bore a few holes in the door to allow circulation of air in the cupboard. Cupboard doors are better left open occasionally, to give them an airing.

FLOORS

The most likely place to find trouble is in any room which has close-fitting linoleum, which stops the circulation of air, and may start dry-rot. If any signs of this are found, drastic action is vital. All infected parts should be completely cut away, and replaced by new. Remember that the spores of the fungus commonly called 'dry rot' spread to the surrounding structure. This should be thoroughly cleaned, preferably with a blow-lamp, and sprayed with a reputable preservative. The new timber should also be treated with preservative. Attention to the air bricks (see p. 228) is the best preventative against trouble of this kind.

HOT WATER SYSTEM

This is really a matter for the expert, but watch for any signs of the pipes 'furring' up, such as reduced flow from taps, or slow heating of the water. The boiler itself may need attention. It should have a 'mud-hole' provided for the purpose of cleaning out accumulated deposit. (See also *CLEANING A BOILER*, p. 117)

DRAINS

During the periodic inspection all open gullies, particularly those which are not often used, should be cleaned out and thoroughly flushed with hot water and soda, to dissolve accumulated grease in the trap. Manhole covers should be lifted, and the free flow of water checked by turning on the bath or sink tap and observing the result. Also examine the fresh-air inlet, which will be found projecting above the last manhole near the gate. It has a mica flap designed to allow the *ingress* of air to the manhole. It may be broken or blocked, with the result that it is merely a vent for the obnoxious smells from the drain. (See also *DRAINS AND PLUMBING*, p. 111)

SUGGESTED PERIODS OF EXAMINATION

The following may serve as a guide: *Externally*: Preferably twice a year, in spring and autumn. *Internally*: Rooms, floors, etc., twice a year; roof, once a year. *Drainage*: Gullies should be checked regularly, at least every month. The manholes need attention only once a year, as a rule.

Moving House

CAREFUL planning and organization can greatly simplify the upheaval of moving house. Contact a reputable firm of moving contractors (or more than one) and have them give you an estimate of the cost. Good firms will bring the necessary cases and packing materials and will attend to any type of packing. They will not take responsibility for breakages of china or fragile articles which they do not pack themselves. The contractors can usually arrange for an all-in insurance of goods during the move. Payment for the service is made in advance or on delivery.

PREPARATIONS FOR THE ACTUAL MOVE

Do ALL the necessary repairs to furniture and furnishings before the move. Re-line drawers and clean carpets, or send them to the cleaners. Arrange for any necessary re-making of carpets to suit the shape of the new rooms, and for fresh linoleum. Have this laid in advance where practicable. If possible, have curtains altered or new ones made. Discard relentlessly all unwanted belongings and clothing. Measure up the new house and make a scale map of each room. Cut out paper shapes to the same scale of the furniture to go into the room. You can get a good idea from this how it should be arranged. If you are not supervising the unloading personally, mark carefully which furniture is to go into each room, and how the carpets should be laid.

Try to have all re-decorating, repairs, and alterations done to the new house before you go in. Ideally, curtain fixtures should be put up and all floors scrubbed, dried and aired.

OTHER PREPARATIONS INVOLVED

Notify the gas and electricity Boards in good time, so that supplies may be connected to the new home. Arrange for transference of telephone. Visit the Fuel Office and have registration changed if necessary. Order boiler fuel to be delivered to the new home in

advance of moving, if possible. Fill in change of address form from the Post Office and see that the milkman, newsagent and other tradesmen who deliver regularly are told of the exact date of the move.

ON MOVING DAY

Arrange that you yourself, or a representative, see all your goods on to the van, and see that you (or a representative) are at the new house ahead of the movers to check that all comes off correctly. Be at hand to indicate in what rooms goods are to be placed. If you have not paid in advance, be sure to have the sum in cash (or a cheque, if previously arranged with the moving contractors) ready to pay the foreman at the end of the move. Have ready (generous) cash 'tips' too! Also arm yourself with large thermos flasks of tea, milk and sugar, sandwiches and cake, in case the essential services have not been connected.

Flowers and Growing Plants in the Home

CHOICE AND CARE OF FLOWERS

IF POSSIBLE, cut flowers in the cool of the day, either morning or evening, and not when the sun is on them. Those with woody stalks, e.g. roses, chrysanthemums, lilac, and all shrubs, should have the ends of their stems split or crushed before being put into water, and will benefit by standing in deep water for some hours before arranging. Remove the leaves from the ends of all stems, as if these begin to decompose in water the life of the flowers is shortened. If all the lower leaves have been removed, the water in vases should not need changing for six or seven days, but vases must be well filled up every day.

Some shrubs, notably philadelphus (*syringa*), lilac, and hydrangea, will often last satisfactorily in water only if all the leaves are removed. These flowering, leafless branchess, carefully arranged, have a lovely effect because the full beauty of the flowers and the shape of the branches is more apparent than in their natural state, but for those who prefer it, separate branches of their own green leaves can of course be added.

Bought flowers should have the ends of their stems cut, and if necessary split, before using. Stand forced roses in deep water up to the base of the flower (or lay in a shallow bath with their heads out

of water) for several hours before arranging. Repeat this treatment if they tend to flag. They will last longer if wrapped up in paper at night to prevent the flower from opening and stood in deep water in a cool place. The stems of tulips can be straightened by a similar overnight wrapping. Lay a long piece of paper on a table, place a tulip with the stem carefully straightened on it so that the stem protrudes beyond the lower edge of the paper. Take one turn of paper over the tulip, then add another flower, and continue till all are wrapped up. Pin or tie this roll and put the protruding stems in cold water.

Violets drink through their faces; they will last longer if removed from their vases at night and placed face downwards in a basin of water. Anemones (and roses) in tight bud open more quickly if stood in warm water.

CHOICE OF VASE OR CONTAINER

VASES that widen towards the top are far easier to use successfully than the straight drainpipe type, as the flowers spread out better in them and appear more natural. On the whole, flowers look better in self-coloured rather than patterned vases, white, cream, or green being the most generally useful colours. When making an arrangement, choose a container that will allow plenty of room for all stalks, of a suitable height for the flowers and of a colour to harmonize with the flowers and the room.

A copper preserving pan makes a beautiful container for yellow flowers, e.g. daffodils, wallflowers, or chrysanthemums, or for a mixture of dried seed-heads; white flowers look attractive in a silver bowl or wine-cooler; and a garden basket with a cake-tin inside can be most effectively arranged with, for example, cut hyacinths, mixed spring flowers, or a lovely profusion of Michaelmas daisies.

The easiest, cheapest, and most satisfactory method of holding flowers in position is to fill the vase with a piece of crumpled-up wire-netting.

Although if the stems of flowers are properly cleared of leaves there is no need to change the water frequently, the vase must be thoroughly washed, and if necessary scrubbed, when emptied.

PRINCIPLES OF FLOWER ARRANGEMENT

IN A mixed group, variety of form is as important as variety of colour. This should be borne in mind when the flowers are selected. For example, in spring a mixture of daffodils, iris, tulips, and lilac

will give complete variety in the shapes as well as the colours of the flowers. An equally effective summer mixture might be composed of gladioli, rambling roses, petunias, zinnias and antirrhinums.

Choose carefully the colour of foliage to mix with flowers. Both silver-grey and yellow-green look good with reds and pinks, but one will give a much softer effect than the rather startling contrast of the other. With blues, a grey-green is generally most effective; and either this or yellow-green can be used with white. Copper-beech is effective with bright reds such as geranium, and with some clear pale yellows.

Avoid the hackneyed mixtures; arrange carnations and sweet peas with their own green instead of with asparagus or gypsophila, and chrysanthemums with lichen-covered branches or dried seed-heads instead of with copper-beech. Use leaves with a purpose, not as a padding; but if an arrangement is to stand against the light, a backing of leaves is almost certain to be needed.

The shape and balance of a group are of the greatest importance to the finished effect. Begin by blocking in the outline roughly, making the height and width of the arrangement about one and a half times the height and width of the container. To give balance, the highest point should be more or less above the centre of the vase, even if a one-sided arrangement is planned, and all stems must radiate from this centre. Avoid putting flowers on the same level, or arranging them in line. Aim at getting a natural in-and-out effect, and remember that depth and form can be given by the group by placing one or two large or heavy flowers low down in it.

Make use of the flowers that obligingly grow with a curved stalk to break the line in front of the vase, or choose for this purpose a trail of honeysuckle or ivy, or a floppy cabbage rose with a head too heavy for its stem. Keep clear lines. Trim off all unnecessary leaves, and simplify branches by judicious cutting-out. Let every flower and leaf have its place in, and be essential to, the finished group.

In any mixture but the cottage-bunch type, a better effect results if the flowers are grouped with several of the same kind and colour together, rather than arranged singly. Choose an uneven number of flowers for each group, three or five rather than two or four. Balance a group that has been placed low down on the left, say, by one of the same or similar colour high up on the right.

Even one flower of particularly lovely shape will give distinction to a group—a lily, for example, or a beautiful full-blown peony or rose. Purple or green auricula add interest to a group of mixed spring flowers, or a trailing spray of passion-flower will 'make' a late summer arrangement.

Show up the full beauty of particular flowers by careful contrast:

place a pale pink rose in front of a deep purple stock, or back a dark crimson rose with a scarlet geranium. If in a mixture of all colours, the completed group somehow fails to give satisfaction, try adding bright pink phlox, zinnias, or petunia, or alternatively pale clear yellow—iris, coreopsis, or helenium.

SOME SUGGESTIONS FOR DIFFERENT TYPES OF ARRANGEMENTS

(1) All of one kind of flower, e.g. daffodils, roses, gladioli. In these groups more than in any others the effect will depend upon the balance and form of the arrangement, and it is most important to cut down some of the larger heads and put them low down in the centre and front of the group.

(2) All of one kind of shrub, e.g. lilac, guelder-rose, cherry. Crush the stems, remove all leaves and any branches which distract the eye from the main line of the arrangement; add separate branches of leaves afterwards if wished.

(3) One kind of flower mixed with some flowering shrub or leaf, e.g. elm with tulips or daffodils; wild arum ('lords and ladies') and white tulips; lime stripped of its leaves and the small early purple gladiolus; purple kale with dahlias; hips or black ivy berries with Christmas rose.

(4) A complete mixture of colours and shapes as suggested earlier. An autumn version of this might contain chrysanthemums, dahlias, fuchsia, scarlet geranium, gladioli and Michaelmas daisy.

(5) A mixture of different flowers arranged in groups. This is more difficult to do successfully than the complete mixture just mentioned, but can be very effective. Balance of colour is very important.

(6) A mixture of different flowers in different tonings of one colour, e.g. yellow and brown wallflower, yellow daffodils and narcissus, polyanthus, euphorbia; in late summer, a collection of pinks and reds of all shades from pale pink roses or phlox to scarlet geraniums, crimson roses and magenta zinnias; or, when flowers are scarce, a grouping of green leaves and berries, e.g. iris leaves, the pale trumpets of wild arum, trailing sprays of ivy or traveller's joy, harts-tongue fern, wild hemlock and any other green leaf or seed-head that will give variety to the group.

(7) A mixture of dried seed-heads and leaves.

(8) A mixture of dried seed-heads and leaves with late roses or dahlias or some fine dark green leaves (e.g. magnolia) arranged in a small container in water in front.

(See Fig. 70)



Effective in autumn—dried seed-heads and leaves



*A high-summer
mixed group*



*Spring tulips
in a casserole*

Fig. 70. Flower arrangements. Dried seed-heads and leaves make a charming mixture. In a mixed group, variety of form is as important as variety of colour. A casserole makes an effective container for tulips in shades of yellow and orange

GROWING PLANTS IN THE HOME

CYCLAMEN, probably the most popular pot plants today, are raised in specialist nurseries and sold by the thousand every winter. They

can be kept alive for many years if grown and cared for properly. During the summer keep almost but not quite dry, and shade in very sunny weather. In the winter keep warm and water in moderation. Chief difficulties are draughts, and fumes from gas fires. The general technique for such popular pot plants as aspidistras, asparagus ferns, primulas, geraniums and fuchsias is to repot in February or March, using nice soil and giving plenty of drainage. Water freely through spring, summer and autumn, but keep the roots nearly dry throughout winter. The way to find if water is needed is to rap the sides of pots with the knuckles: if they sound hollow give a copious watering; if they sound dull, do not give any. Chief causes of failure are: draughts, over- or under-watering, over-potting, thrips or plant lice due to faulty attention.

(See also FORCING BULBS, p. 220)

Dogs and Cats in the Home

HEALTHY, well-cared-for animals contribute towards happiness in the home. Whether you have acquired an animal for companionship or for usefulness, it is your responsibility, and should be your pleasure, to give it the best life you can. This does not mean spoiling it—a spoilt animal like a spoilt child is a nuisance to everyone. A little care and thought is all that is needed.

· HOW TO SELECT DOGS

PUPPIES are not ready to leave their mothers until they are at least eight weeks old. Larger breeds and sporting dogs require plenty of exercise; long-haired breeds need most grooming. If you have young children, be careful to pick a dog of even temperament, but remember the most gentle dog may turn if teased or ill treated.

Bitches are often more affectionate and easier to train than dogs, but at any age between six months and a year, according to breed, a bitch will come 'on heat' or 'in season'. During this period which lasts about three weeks, she is in condition for breeding. Most bitches come in season twice a year; thus, unless it is desired to breed from them, they must be kept away from the dogs at this time. Tablets containing chlorophyll may be tried but should not be relied upon. They may enable you to exercise your bitch on a lead without too much attention from dogs. Should your bitch become unintentionally mated, an injection given within three days by a qualified veterinary surgeon will prevent her from having puppies.

DOGS—TRAINING TO BE CLEAN

PATIENCE and perseverance are essential when training a young puppy. Scold when it has done wrong and praise when it behaves. Put outside or on paper at regular intervals. When taking it out for a walk, train your puppy to use the gutter. There is no excuse for owners who allow their dogs to foul the pavement.

THEIR HOUSING

HARDY breeds used to living outside can sleep in an outhouse or kennel, given plenty of clean dry bedding, and, if possible, a wooden sleeping bench raised above floor level. The kennel must be large enough for the dog to turn round, to stretch out comfortably, and thoroughly weather-proof and well ventilated. A young puppy should always be allowed indoors for the first night or two, as it will miss its little brothers and may howl all night. When first put outside to sleep, a soft broom-head will comfort it.

FEEDING PUPPIES

Cow's milk is not as rich as bitch's milk, so it needs the addition of a little butter or margarine. Goat's milk or one of the patent milk foods is best. From five weeks old, normally developed puppies can take small amounts of scraped raw meat. At eight weeks, at least two of the meals should be raw meat or other protein food such as tripe, or cooked boned fish or rabbit.

From two to three months, puppies need five or six meals a day. Feed little and often, as over-distension causes digestive troubles and fits. Gradually increase the amount of food and decrease the number of meals until at six months they are having two meals a day. It is not safe to give dogs small bones or those they can chew up. These may splinter and cause constipation, laceration, or even penetration of the bowel, or they may become lodged in the stomach. Long marrow-bones which cannot be splintered provide exercise for the gums and help puppies during teething.

A teaspoonful of cod liver oil or a drop of halibut liver oil should be given twice daily for the first few months, unless the bowels become too loose. Finally, remember that puppies are individuals and hard-and-fast rules cannot be made.

FEEDING ADULTS

Dogs are by nature meat-eaters. Their digestive tracts are not designed for human diet, so do not, in mistaken kindness, feed your

dog as you feed yourself. Meat, including horseflesh, venison, rabbit, and offal, fish or tripe should be given at least once a day. Eggs, occasionally, are excellent. Wholemeal rusks and small amounts of carrots or green vegetables may be added to the diet, also occasional biscuits of a good make. Better still, make your own biscuits; here is a recipe: Add a broken-up Oxo cube and a pinch of salt to 8 oz. wholemeal flower. Rub in 2-3 oz. fat, and mix to a firm dough with a little water, milk, or gravy. Knead well, shape into biscuits, and bake till crisp in a hot oven. Whalemeat is too rich for most dogs and if given often may result in eczema. Do not over-indulge in proprietary canned or dehydrated foods, but reserve for emergencies.

SIGNS OF GOOD HEALTH

A healthy dog has a clear eye, a supple skin, a good coat, clean breath, normal appetite, and normal stools. The cold wet nose—the average owner's barometer of health—is not reliable, some always being dry whilst others remain moist in fever. A dog's normal temperature is about 101° Fahrenheit. To take the temperature, lubricate the thermometer well and insert into the rectum.

DOGS—SOME COMMON AILMENTS

WORMS

Roundworms usually cause most trouble in younger dogs, and tapeworms in the adult. Roundworms, pinkish-grey in colour and pointed at both ends, may appear in the stools or vomit. They may have been passed on in the larva stage to the unborn pup from the mother. Infected pups are pot-bellied and stunted, with a harsh, staring coat. Fatal convulsions occasionally result.

Never dose puppies under eight weeks old without veterinary advice.

Tapeworms may be recognised by segments resembling rice grains in the stools or sticking to the hairs beneath the tail. The dog may be thin or bloated, have fits, show irritability, bite its legs, or rub its anus along the ground.

Immature stages of tapeworms are found in fleas and lice and in rabbits and fish. By ensuring that your dog is free from lice and fleas and never eats rabbit or fish uncooked you will help to prevent infestation. Treatment of tapeworms should always be undertaken by a qualified veterinary surgeon.

FITS OR CONVULSIONS IN PUPPIES

These are usually due to indigestion, fright, worms, or teething. Keep calm yourself and put the dog in a dark quiet place where it

cannot injure itself. Leave it alone and do not attempt to give it anything until it has recovered. Fits may also herald infectious diseases. You should seek veterinary advice immediately.

HYSTERIA OR FRIGHT DISEASE IN DOGS

This is commonest in young dogs, and comes on suddenly. It is caused by wrong feeding, heat, or excitement, the dog barking and howling for no apparent reason. Keep in a dark quiet place, apply cold compresses to the head and later give a dose of Milk of Magnesia and a mild sedative. More protein in the diet helps to prevent the condition.

DISTEMPER AND PARADISTEMPER ('HARD PAD')

These are serious infectious diseases, non-communicable to man, caused by viruses. They mainly attack young dogs.

Distemper usually begins with fever and loss of appetite, sometimes with fits. Later, secondary organisms may cause thick discharge from the eyes and nose, diarrhoea, and cough. Complications include pneumonia, chorea, paralysis, and meningitis. Call a veterinary surgeon at once. Distemper serum is a specific remedy if given in the early stages.

Nursing is extremely important. See that the dog is kept quiet and warm, away from draughts, and in an even temperature. Do not attempt to force liquids down unless advised to by the veterinary surgeon and shown the correct method. It is easy for an amateur to choke a sick dog. Never give a sick animal castor oil. It will irritate and inflame the bowels and can even cause death.

'Hard-Pad' disease is more insidious in onset. Often the first signs are persistent diarrhoea, bloodshot eyes, and cough. The animal may appear lively and eat well. Hard-pads are not an early symptom and they may never develop. Later, nervous symptoms occur but it is easier for the veterinary surgeon and better for the dog if advice is sought before this stage.

The only effective method of protection against distemper was afforded by the Burroughs Wellcome 'Field' inoculations. Immunity is life-long and, provided the animal is absolutely fit when inoculated, complications are almost unknown. This firm has now produced a new inoculation which protects against both 'Hard-pad' and distemper and may be used by a veterinary surgeon in the treatment of both diseases.

'CANKER' OF THE EAR

This is a loose term and usually means inflammation of the minor

parts of the ear or ulceration with discharge from the ear. Inflammation may be acute or chronic and is caused by dirt, foreign bodies, including grass awns passing down the ear canal, growths, mites or eczema. These result in irritation and pain and the dog will shake his head or scratch his ears persistently. Do not attempt to clean out the ears yourself. The ear is too delicate to stand probing by the unskilled amateur. You may make matters worse. The only safe home treatment is to drop a little slightly warmed oil into the ear canal, gently massaging the ear from the bottom upwards and wiping out any brown discharge or excess oil as it is pressed to the top of the ear.

When inflammation in the ear has persisted for some time, dead material collects in the ear and gives off an offensive odour. This condition sometimes needs an operation to effect a cure.

ECZEMA

This is a non-contagious skin disease. It may result from irritation due to fleas, lice, or harvest mites, and often from impacted anal glands. In these cases it will disappear when the irritating agent is removed and the dog ceases to bite and scratch itself. Diet deficiency or supersensitivity to certain foodstuffs is also a cause. Sometimes eczema appears where there is friction between the two skin surfaces, as in a fold in the lips in spaniels and setters, or between the toes.

Cut the hair away from the affected areas to facilitate dressing. For dry eczema use calamine, zinc oxide ointment or olive oil. Treat moist eczema with calamine lotion or fuller's earth or paint the affected parts with a solution of 1 per cent gentian violet in water. Be careful not to get this on your clothes as it leaves a stain which will not come off. Internal treatment must be given by a veterinary surgeon.

RINGWORM

This is caused by fungi. It is characterised by small areas of denuded hair or with a few broken hairs protruding from them. Later the patches become scabby and will spread all over the body if not treated. As this condition is communicable to man, diagnosis is best made by a veterinary surgeon. Diagnosis in the early stages is made microscopically. Cut the hair round the affected patches and paint with a 1 per cent gentian solution. Keep a close watch for fresh places and treat them straight away.

MANGE

There are two main types of this contagious parasitic skin disease: Sarcoptic mange and follicular or demodectic mange. The former

can be transmitted to humans, but this rarely happens. The dog exhibits intense irritation and reddening of the skin; pustules develop and the hair falls out. Diagnosis can be confirmed by a skin scraping being taken and examined microscopically. Treatment is best carried out professionally. Modern treatment, usually consisting of baths and lotions, is more efficacious and less unpleasant than the old sulphur-and-oil method. Some cases of mange are very resistant to treatment, but in all cases recovery is speeded if the animal is attended to before the contagion has spread all over the body.

FLEAS

Each animal has its own particular flea. Most dogs that go out and meet other dogs catch fleas some time or other, especially during the warm weather. Flea dirt, which looks like coal dust, can be seen in the animal's coat. Brushing and combing will help to get rid of this, but will not kill the fleas. Part the hair and dust the coat with an anti-flea powder. Do not use one containing D.D.T. for young puppies or for cats (see p. 243); it has been known to kill them. Repeat the dressing in 10-14 days, on both occasions dusting the dog's bed or kennel as well. The flea eggs have a resistant capsule, but the second application will kill the young fleas as they hatch out. In bad cases, bath with medicated shampoo instead of using the powder. Repeat as with the dry dressing.

LICE

Treat as for fleas. Irritation from fleas and lice cause the animal to scratch and may result in eczema. Fleas and lice may also be the intermediate hosts of tapeworms.

CATS

SELECTION

Both male and female kittens can be neutered. In the latter case the operation, known as 'spaying', is an abdominal one and must be done under general anaesthesia by a qualified veterinary surgeon. If performed between three and six months of age, before the kitten comes in season, there is very little risk; it can be done later, even after several litters, with slightly more risk to the cat. It does not harm the cat in any way or prevent her mousing. Usually she becomes more affectionate afterwards.

HOUSETRAINING

Kittens have naturally clean habits. Show your kitten the tray

you want used, keep it in the same place, and the kitten will always go there. Ashes, sand, soil, sawdust, or peat moss can be used in the tray. A cat that is dirty is either ill or unhappy. Cats usually like to sleep somewhere off the floor. You can give your cat a box or a basket, but in the end it will probably choose its own bed.

GROOMING CATS

Although cats and most kittens are very particular with their toilet, daily grooming is advisable, especially with long-haired varieties. When the latter shed their coats in the spring and Autumn, they tend to swallow the long loose hairs, which stick together forming a hairball. If the cat cannot get rid of this, it may be very ill indeed. A teaspoonful or two of glycerine or 3 or 4 teaspoonsful of medicated paraffin may move it; if not, get professional advice.

An ungroomed long-haired cat will develop tangles in the coat, which will eventually get very matted up. If neglected too long, the cat may be unable to move and may even die.

FEEDING CATS

Kittens from six to twelve weeks need five to six small meals a day. Gradually reduce the number of meals and increase the amount of food until at six months they are having two meals a day. Like dogs, cats are carnivorous and need meat. Kittens can have two or three milky meals a day, consisting of slightly warm goat's milk, Farex or patent milk foods, eggs, yoghourt or porridge. The other meals should be of scraped or shredded raw meat or liver, or cooked and boned fish or rabbit. Give a drop of halibut liver oil with meals once or twice a day. Cats cannot live on the mice they catch. Only well-fed cats are good mousers.

Different cats like different kinds of fish, but all cats are fastidious, so never give your cat its food on a dirty dish or offer stale food. Remember, some cats, notably Siamese, prefer drinking water to milk. Horsemeat, beef, mutton offal, and rabbit are all good for cats, but whalemeat and—in the case of some cats—excess fish will result in eczema.

COMMON AILMENTS OF CATS

LIKE the dog, the cat can suffer from roundworms or tapeworms (see p. 238). Cats should never be dosed for worms, when they are not well. Medicinal paraffin is all that can be safely given to young kittens by an amateur.

When dosing your cat for roundworms, be very careful you use

something intended for cats. Dogs and cats react differently to certain specifics, and some which are harmless to dogs will kill a cat. Dosing for tapeworm should be done by a veterinary surgeon. Never give a cat castor oil. Treat constipation first of all with medicinal paraffin or kaylene-oil; if something stronger is needed, try milk of magnesia.

CATS—FITS

These are not as common in cats as in dogs; they are usually due to fright, wrong feeding, or worms. Treat as with puppies (see p. 238). Canker in cats is usually due to a mange mite, which attacks the head and ears and is easily spread. The ear canal is seen to be full of a dark brownish material composed of thousands of these tiny parasites. They cause intense irritation, and the animal will shake its head and scratch violently. It is best and quickest to have the condition treated professionally. If left, the cat may scratch itself raw round the base of the ear and the continual shaking may result in a swelling of the ear, which can only be treated surgically. Canker in cats may also be due to chronic eczema or inflammation and catarrh of the ear.

FLEAS

Treat as for puppies (see p. 241). Cats with a heavy infestation of fleas may also be bathed, but be careful to use nothing containing carbolic as this is poisonous to cats. Bathing does not stop a cat from washing herself.

DISTEMPER OR INFLUENZA AND INFECTIOUS ENTERITIS

Some veterinarians believe that these are two distinct diseases, others maintain they are different manifestations of the same disease. In any case, the cause is a virus affecting only cats. Epidemics occur every year. The variation in symptoms is probably due to the invasion of different organs of the body by secondary infections. In young kittens the disease may be very acute, death occurring sometimes within a few hours of the first signs of illness. These cases usually begin with vomiting and diarrhoea leading to suspicions of poisoning. (Cats are very fastidious feeders and are rarely poisoned.) The only hope is to get advice at once. Less acute forms may attack the throat and respiratory tract and the cat may develop pneumonia. There is no specific treatment, although there are serums which have some value.

Symptoms must be treated as they arise. Cats are difficult patients. They need encouragement, as they do not fight for themselves, and

they usually resent handling. A cat suffering from any form of influenza will attempt to lie in a cold spot. Keep in one room (if a kitchen, see that the cat cannot get at the sink), and cover any bare parts of the floor with rugs or layers of newspapers. Restrict movement as much as possible, as the disease is weakening and may affect the heart. Older cats have the best chance of pulling through, but professional advice should be sought as soon as possible. There is now an inoculation (Burroughs Wellcome) against infectious enteritis in cats.

LEGAL ASPECT OF ANIMALS IN THE HOME

AS A RULE, no liability attaches to the owner of a small domestic animal in respect of trespass or damage by the animal. It is up to keen gardeners to protect their property by proper fencing. But if *dogs* destroy chickens, or injure or worry cattle or sheep, the dog owner may be made to pay compensation even though he may not have been negligent. In addition the dog may be ordered by a magistrate to be destroyed. The owner of a dog or other domestic animal is not liable if it injures a human being, unless it can be shown that the owner knew it was dangerous. It is possible, for a small sum, to insure a dog against Third Party risks.



Causes and Emergency Treatment of Common Accidents

ACCIDENTS in the home account for the deaths of more than 8,000 people a year, many of them children and elderly folk.

Causes of accidents include such things as—leaving dangerous objects, like scissors or sharp knives or a box of matches where small children can reach them; leaving children or elderly, infirm people or people who are subject to epileptic fits alone in rooms with unguarded coal, gas or electric fires; electric switches near the ground which children can turn on, such as those controlling electric fires, kettles or irons; metal switches or faulty switches touched with wet hands, particularly electric heaters in bathrooms; trailing flexes or loose wires; saucepans or kettles left simmering on the stove in reach of a child, saucepans with handles turned outwards on the gas stove so that they are easily overturned in passing, kettles left with the spouts facing the room; over-polished floors, worn carpets or linoleum, small loose mats on slippery floors, patches of grease, loose stair-rods or edges of carpets not nailed down; bad lighting on stair-cases or cellar steps; standing on rickety chairs or step-ladders not properly opened or set on uneven ground; faulty gas-taps or carelessness in turning off the gas; leaving gas fires on through the night when the gas supply may fail for awhile and then escape later after the light has gone out; upstairs windows left open at the bottom for small children to climb out; small children grabbing at the table-cloth; leaving baby in his pram or high-chair without fastening a safety-belt.

In most accidents, particularly in severe burns and scalds or where there has been much damaging of the tissues or loss of blood, the victim is suffering from shock.

BURNS AND SCALDS

These are best treated by covering the area with a clean cloth saturated with a solution of common salt and water or bicarbonate of soda and water (in either case, about 1 teaspoonful to a pint). Cut away clothing if necessary, and do not attempt to pull away adherent pieces of material. Cold, strong tea can be used if available.

Avoid oils. Treat for shock. Burns on the hands, face, buttocks or over a large area of skin are particularly dangerous in small children and further treatment must be given as soon as possible to save life.

CUTS AND ABRASIONS

These should be washed clean. If there are no washing facilities available, dab on iodine. A good stock dressing for any cuts, clean or infected, is acriflavine. It may be used in a watery solution or as an emulsion.

CONCUSSION

Falls or blows on the head may cause concussion. The victim should be kept quiet and lying down in a darkened room. If the blow has been on the side of the temple, there is a risk of haemorrhage inside the skull. If such a patient is knocked unconscious at the time of the accident, then recovers and afterwards becomes drowsy, a doctor must be called without delay.

FAINTING ATTACKS

Give the patient air. Loosen tight clothing and collars, don't let other people crowd round, and get him into a current of air, bathing the face with cold water. *Never force liquid* between an unconscious person's lips or they may choke. To ward off a fainting attack, sit in a cool, airy place with the head bent between the knees.

DEALING WITH FITS

Prevent the patient from choking and from hurting himself. Loosen any tight clothing, particularly at the neck. Put a spoon-handle or other blunt object between his teeth to prevent him biting his tongue. Turn his head to one side so that the saliva can dribble from his mouth and so that his tongue does not fall to the back of his mouth. Get him away from any source of danger such as a staircase or a fire on which he might fall.

FOREIGN BODIES IN THE EYE

Grit, insects, dust, etc., should be washed out if possible. Salt and water, 1 teaspoonful to the pint, is one of the simplest and best solutions for bathing inflamed eyes. If corrosive fluid or any burning particle is known to have got into the eyes, a drop of castor-oil is soothing. Particles embedded in the surface of the eye should be removed by a doctor. In all cases avoid rubbing the affected eye.

WHEN A FOREIGN OBJECT HAS BEEN SWALLOWED

If a child is thought to have swallowed a sharp object such as a

pin, he should be taken to hospital straight away. Avoid giving purgatives. Small, blunt-shaped objects such as buttons, coins, etc., rarely do much harm if swallowed—except by a very small baby.

FRACTURES

If you suspect a fracture, immobilize the limb. Walking-sticks or pieces of padded wood can be used as improvised splints. They should extend beyond the joint above and below the suspected break. In fractures of the lower limb, use the opposite leg as a splint on one side. In injuries to the upper limb, simply support the arm in a sling, without trying to do any splinting.

HAEMORRHAGE

Bleeding from a cut or wound can usually be controlled by direct pressure on the bleeding area. Make a hard ball out of a clean handkerchief or other material and press it firmly on the wound. Keep in position, if necessary, with a tight bandage. Raise the affected limb. If bleeding is dangerously severe, a tourniquet may be used. This may be made by tying a handkerchief or bandage round the limb, on the side of the wound nearest the heart, and inserting a pencil or piece of stick between the cloth and the limb so that it can be twisted tight. This stops the blood-supply to the lower part of the limb. If kept on too long it may permanently endanger it. It is therefore essential to loosen the tourniquet every 10-15 minutes.

NOSE-BLEEDING

In children this is usually from the front of the nose. It is best treated by lying the child down, bathing the forehead and root of the nose with cold water, and getting him to pinch his nose hard and breathe through the mouth. *In elderly people* the bleeding is often from the back of the nose and is more difficult to control by pressure. Lay the patient on his back with his head turned to one side over a towel, so that the blood and saliva trickle out. Put a cork or some other convenient object between his teeth to keep his mouth open so that he cannot swallow. This keeps the uvula and soft palate still until the blood has had a chance to congeal and seal off the bleeding vessel.

TREATMENT OF SHOCK

Keep the patient warm, with blankets, hot-water bottles and a drink of hot-sweet tea or coffee. Let him lie down, if possible on a sofa or couch, with the feet raised a little higher than the head. Keep quiet. In severe cases get a doctor quickly or get an ambulance,

Signs of shock are pallor, a cold, clammy skin, a rapid shallow pulse, collapse. Treatment of shock is most important.

SPINAL INJURIES

In suspected spinal injuries, move the patient as little as possible, and if at all, in a face-downwards position so that the spine is kept extended. Cover him with a warm blanket and treat for shock until the doctor or ambulance arrives.

SPRAINS

These are best treated with a cold-water bandage, or alternate hot and cold water sponging, to relieve pain and get the swelling down. Rest at first and later use some firm support such as crepe bandage or strapping.

STINGS AND INSECT BITES

Dab with calamine lotion or bathe with a solution of bicarbonate of soda, 1 teaspoonful to a pint. This takes down the redness and swelling and relieves the itchiness. Treat sunburn similarly.

FIRST-AID BOX

This should contain an antiseptic, iodine, white lint, cotton-wool, bandages, a triangular bandage for a sling, adhesive tape, safety-pins, bicarbonate of soda, common salt, acriflavine either in tablet form or in solution or emulsion, calamine lotion, scissors.

Childhood Illnesses

ABDOMINAL PAIN

This may be due to colic (see p. 249) or to constipation, or it may be due to some obstruction such as a twisted or blocked loop of bowel or an inflamed appendix. Do *not* give an aperient. If the pain persists, call a doctor without delay.

ACIDOSIS (KETOSIS)

This is a condition in which fats in the diets are not properly digested. The children affected are usually excitable and suffer from attacks of vomiting or from car and train sickness. Give as much sugar as possible. Glucose, barley sugar and boiled sweets are helpful. If sufficient extra sugar is given, an ordinary amount of fat can be digested, but it is wise to avoid fat bacon or meat and fatty fried foods.

BRONCHITIS

Babies and young children frequently suffer from attacks of bronchitis. Some babies get bronchitis when they are teething. Fat, heavy babies tend to be subject to such catarrhal infections. Avoid over-feeding, over-clothing and hot stuffy atmospheres. Give the child as much fresh air as possible and teach him to breathe deeply and expand his chest properly. Children suffering from an attack of bronchitis should be seen by a doctor. (See also p. 255)

FEVERISH COLDS

Any child who appears to be running a temperature with a cold, should be kept away from other children, put to bed, and kept warm. Give plenty of fluids and a dose of opening medicine if necessary. A heavy cold, with running eyes and a high temperature, is frequently the forerunner of measles. If the feverishness persists, call a doctor.

COLIC

Colicky pains are usually due to some digestive upset. In toddlers, too much fruit, especially stone or unripe fruit may cause pains. Occasionally babies cannot digest orange-juice, when give rose-hip syrup or blackcurrant purée instead. During baby's feed, hold him over your shoulder and pat or rub his back, two or three times, if necessary, to 'get the wind up'. Give feeds more slowly. Half-a-teaspoonful of gripe water mixed with $\frac{1}{2}$ -2 teaspoonsful of warm water and a pinch of bicarbonate of soda, ten minutes before a feed, helps to prevent wind and colic afterwards.

CONVULSIONS

These may occur if baby gets any sudden rise in temperature, or at the onset of an acute illness, but with older children, epilepsy can be suspected. The child may go 'stiff' or there may be squinting or twitching of the face and limbs. Call a doctor; in the meantime, sponge the child down with warm water and put to bed in a quiet semi-darkened room.

EAR-ACHE

Babies who are teething often suffer from referred pain in the ear. Rub gently in front of the ear with a little warm olive oil. Feverishness, vomiting, redness are danger signs; call a doctor without delay. Persistent discharge always calls for a visit to the doctor, and it is wise when older children complain of ear-ache.

ENLARGED GLANDS

Glands in the neck, groin, or armpit, frequently become enlarged when there has been some infection in the area which they drain. The function of such glands is to trap the germs and prevent them spreading into circulation. Glands in the groin or armpit can often be felt when there is a sore on the foot or hand, or higher up the leg or arm. In the neck swollen tender glands occur in tonsillitis, ear, or scalp infection and in many childhood fevers—e.g. German measles. There is also a possibility of T.B. glands. It is advisable always to see a doctor, especially if the swelling persists. Attention must first be directed to cleaning up the infected area drained by the glands, after which they will gradually subside.

ENLARGED TONSILS

Simple enlargement of the tonsils is not sufficient reason for having them removed. As children grow older the tonsils and adenoids tend to grow smaller of their own accord. It is only when there have been repeated attacks of tonsillitis that their removal may have to be considered. Gargling with warm water and salt helps to ward off infection.

GASTRO-ENTERITIS

(See SUMMER DIARRHOEA, p. 251)

'GROWING PAINS'

Such pains may be due to rheumatism and it is essential to have the child examined to exclude the more serious effects of rheumatism such as chorea (St Vitus Dance) or involvement of the heart. Wearing long woollen stockings or long socks in cold weather and sleeping between blankets, is helpful, but never attempt to treat without medical advice as the rheumatic danger is a very real one.

NAPKIN RASH

This may be caused by the chemical action of concentrated urine on the skin (give extra water to drink) or during an attack of diarrhoea. Excessive use of strong detergents when washing the nappies may also cause a rash. Change nappies frequently and wash them with soap that does not contain soda. After boiling, rinse in a solution of bicarbonate of soda and water. Avoid using rubber or plastic knickers, except for very short periods. Apply zinc and castor-oil ointment to sore areas.

SORE THROAT

If a child should complain of soreness, or you should discover inflammation, consult a doctor. Diphtheria is always a possibility, so is polio, as are less serious infectious diseases.

SUMMER DIARRHOEA OR GASTRO-ENTERITIS

This is more frequent in the hot weather but can occur at any season. Symptoms are frequent loose stools, which may be green or offensive, and vomiting. Give plain, boiled water only for 12 hours, then gradually increase feed back to normal. If diarrhoea and vomiting continue, get medical advice *quickly*. Gastro-enteritis is a serious disease and is often fatal if neglected. It is much more frequent in bottle-fed than in breast-fed babies. Prevention lies in scrupulous cleanliness—of hands, feeding-bottles, teats, etc., and in avoiding any possible contamination of baby's feeds.

TEETHING

Teething troubles are common from about 5 months old. Useful signs are fretfulness, dribbling, rubbing the head or ears. Chesty babies often cut a tooth with an attack of bronchitis. Let the child have something hard to chew on, a rusk, or a clean scraped bone. Rubbing the gum gently with a piece of gauze, moistened with glycerine and borax and wrapped round the finger, helps to ease it. See that baby gets a regular teaspoonful of cod liver oil. If inclined to be constipated, give a small dose of magnesia.

Infectious Diseases

CHICKEN-POX

This usually causes very little trouble. Incubation period is 11-21 days. Small, raised papules appear in crops mostly on the trunk and frequently on the scalp. These develop into vesicles and later form scabs. The rash is itchy and the child must be prevented from scratching, as pulling off the scabs may lead to permanent pox-marks. Calamine lotion helps to control the irritation.

The child is free from infection after the last scab has fallen off or 3 weeks after the appearance of the first crop of papules.

DIPHTHERIA

This is a serious and often fatal disease, especially in young children. Incubation period is 2-7 days. The patient seems ill, pale and listless. The temperature is slightly raised. There is a sore throat

and pain on swallowing and patches of greyish-white membrane may be seen in the throat. Treatment must be given early to save life. Absolute rest and the injection of antitoxin are essential. Any child with a sore throat should be seen by a doctor as soon as possible.

GERMAN MEASLES

This is usually a mild infection. Incubation period 5-21 days. A fine pink rash appears, usually behind the ears at first, then on trunk and limbs and the glands at the back of the neck become enlarged and tender. The temperature is not usually high. The disease runs a very short course and the patient is free from infection 7 days after the appearance of the rash.

MEASLES

This is one of the most common infectious diseases of childhood. Incubation period is 7-14 days, but symptoms usually develop about the 12th day after infection. They include running of the nose and probably eyes, feeling ill, and a high temperature. Usually there is a cough. A fine rash may appear at first, but this fades quickly and the typical blotchy rash of measles takes its place. Children suffering from measles should be kept in bed until at least 24 hours after the temperature has returned to normal. The room should be semi-darkened, for co-existent conjunctivitis will cause aching eyes. Complications include damage to the eyes, ear infections and pneumonia.

Keep the patient away from school and from other children who have not already had the disease, for 14 days from the appearance of the rash.

Second attacks of measles are very uncommon.

MUMPS

This causes swelling of the glands below and in front of the ears. It usually starts on one side and is followed by swelling of the opposite side later. Incubation period is 12-28 days. Chewing is painful and the diet should, therefore, be soft and mainly fluid. A warm flannel against the face helps to relieve pain. The disease may be accompanied by tender breasts in girls, and by swelling and tenderness of the testicles in boys. Sterility may be a future result if testes affected. Hormone treatment of this complication can be given by the doctor during the attack.

POLIO (ANTERIOR POLIOMYELITIS) OR INFANTILE PARALYSIS

This may occur at any age. Incubation period is 2-10 days or longer, usually 3-4 days. Symptoms at onset resemble those of 'flu':

general *malaise*, vague aches and pains, a headache and sore throat. Then the neck becomes stiff, headache continues; there may be vomiting. The onset and paralysis does not occur until several days later. To be on the safe side *call the doctor at the first stage*. Hospital treatment is essential.

PULMONARY TUBERCULOSIS

Symptoms are usually vague. A child does not gain and may be losing weight, is pale, listless, may be feverish and sweats at night-time, but rarely has a cough. It is dangerous for children to have contact with an adult suffering from open T.B. Always get an X-ray done if T.B. is diagnosed in family or contacts. In older people there is usually a cough accompanied by sputum. Doubtful cases of children or grown-ups should always be examined by a doctor and skin tests and X-rays may be necessary. (See also p. 257)

SCARLET FEVER

The incubation period is short, 1-7 days. Symptoms are a high temperature, headache, flushed face with a pale area round the mouth, sore throat and a strawberry tongue. After 24 hours a bright, diffuse rash appears first on the trunk. Peeling begins about 4 days later. Cases are best treated in an isolation hospital.

WHOOPING COUGH

This is a serious and common disease of childhood and requires careful nursing. Incubation period is 6-18 days. The cough is not typical at first, but tends to be worse at night and to come in spasms. At the end of a spasm of coughing the child draws in its breath, but this does not develop into the characteristic whoop for about 10 days and may never do so if he has been immunized. At the end of a bout of coughing, the child usually vomits.

Keep up the strength by giving plenty of fluids—fruit drinks with glucose and milk. Meals should be light. 'Jittle and often' is the golden rule; much patience and perseverance is necessary as the loss of food by vomiting must be made up. Feed again as soon as the vomiting ceases; the food may be kept down this way. Extra rest may be needed in the daytime to compensate for loss of sleep at night, but unless the child has a temperature, there is no need to keep in bed. The child is infectious before the whoop develops and should be kept away from others and especially babies, to whom the complaint is very dangerous, until 4 weeks after the onset of the whoop.

CONTROL OF INFECTIOUS DISEASES

The more infectious diseases are notifiable by law to the Public

Health Authority. This is the responsibility of the doctor in charge of the case.

Persons suspected of suffering from an infectious disease should be isolated immediately in their home, and should not use public transport or expose others to infection by attending cinemas, cafés or other places of entertainment. Children should be kept away from school.

Ordinary disinfection is sufficient in most cases—washing and scrubbing with soap and water and airing of rooms. The patient's handkerchiefs, clothing, and bedding should be washed separately at home (not sent to a laundry). Cutlery, cups and glasses, should be kept separate and dipped in boiling water.

Protection against certain diseases may be given by vaccination or inoculation.

Vaccination against smallpox should be carried out if possible before the child is 6 months old. All babies should be immunized against diphtheria at 9 months. This is performed free of cost at any Infant Welfare Centre or Public Health Department; it consists of two small injections made at intervals of 4 weeks, a further injection being advisable at 5 years.

Protection by inoculation against whooping cough is not certain, but usually prevents or modifies the disease. It consists of three small injections at monthly intervals and may be begun as soon as the child is 6 months old.

Schemes for vaccination to prevent tuberculosis are at present under consideration and have proved successful in other countries.

Home Nursing

ABDOMINAL PAINS (See p. 248)

ASTHMA

This often has a psychological basis. In the case of children, mothers should avoid fussing or over-anxiety. Fresh air, light clothing and out-of-door exercises, also deep breathing in front of an open window, are beneficial. A regular, steady life is necessary. Avoid a late meal at night, bedtime snacks or stodgy foods. Try to discover the particular allergy—cats, flowers, dust, for example. A doctor may prescribe tablets or capsules to be taken when an attack comes on.

BLANKET BATHS

Have the patient lying on one blanket and covered over with another. Uncover each limb separately, sponge with warm water and soap and dry. Then wash the rest of the body, uncovering only a small area at a time while the remainder is kept warm under the blanket.

BRONCHITIS

Keep as far as possible in an even temperature during acute attacks. Inhalations of Friar's Balsam in boiling water, and a steam kettle to keep the atmosphere moist, may help the breathing. Rubbing the chest back and front at night-times with camphorated oil, diluted half-and-half with liquid paraffin for very young children or babies, is also useful.

FOLLOWING CHILD-BIRTH

Graduated exercises are usually begun a day or two after delivery. In uncomplicated confinements, mother is usually up and about by the 10th day. Diet should be nourishing and contain plenty of fluids. Avoidance of worry is one of the greatest factors in establishing breast-feeding. A postnatal examination by a doctor is advisable about a month after the confinement.

CHANGING A BED FOR A SICK PERSON

This should be done with the minimum of disturbance. Have the clean under-sheet ready rolled up lengthwise. Roll up the soiled sheet in the same way until it lies close to the patient's back and partially unroll the clean sheet in its place. The two rolled portions of sheet should now lie side by side. Turn the patient gently over both. Continue rolling up the soiled sheet and unrolling the clean one on the further side.

CONSTIPATION

Regular habits of emptying the bowel should be encouraged from childhood; before or after breakfast is usually the most convenient time. A glass of water on rising often helps. Plenty of vegetables provide the roughage necessary to stimulate the bowels to act. Fruit juices are valuable. Outdoor exercise is also important. Regular purgation should be avoided or the constant use of liquid paraffin. Elderly people may need a laxative every few days. Salts in the morning or senna or cascara at night-time are recommended. Strong purgatives should never be given when there is abdominal pain.

DIARRHOEA

Babies with diarrhoea should be starved for 12-24 hours and then the normal diet gradually resumed, but a doctor should be called. In older persons, consult a doctor if the condition persists, particularly if it is accompanied by abdominal pain or vomiting. In simple cases of diarrhoea, a period of starvation followed by a dose of castor oil will frequently clear up the trouble. A mixture containing powdered chalk may be given.

MAKING A FOMENTATION

Cut a piece of pink lint, larger than the inflamed area which it is to cover, and place it in the centre of a clean cloth or towel. Fold the towel lengthwise with the lint in it. Place the centre portion containing the lint in a bowl or basin, so that the ends of the cloth hang down over the edge. Fill the basin with boiling water from a kettle. Leave to soak for a minute or so, then lift the towel by its dry ends and wring out thoroughly. Remove the lint, shake out quickly, and apply to the affected area. Cover with jaconet and cotton wool before bandaging.

HEART CASES

All the various types of heart diseases require their own treatment, and a doctor's advice should be carefully followed. In general the patient should live within his limits, avoiding worry or getting over-tired. A light easily-digested diet is advisable.

THE AFTER-TREATMENT OF SURGICAL OPERATIONS

Adequate rest and avoidance of strains is essential. Diet should be light and nourishing. Bowels should be kept regular with the use of a mild aperient. Exercise must be gradual in the early stages and games, swimming, and physical training only resumed on the advice of a doctor.

PHLEBITIS

Deep venous thrombosis, e.g. white leg after confinements and surgical operations, needs rest in bed and drug treatment. Thrombosis of the *superficial* veins, e.g. varicose veins, needs only local applications to relieve pain, if necessary.

PNEUMONIA

Keep the patient quiet and comfortable, with plenty of fresh air and light bedclothes. Give sweetened drinks and a nourishing semi-fluid diet. A sputum mug should be provided and the patient

encouraged to cough up sputum instead of swallowing it. Treatment is by one of the sulphonamide group of drugs, or by penicillin, given at the intervals stated by the doctor. Extra fluids must be given while the treatment is being carried out.

TO MAKE A POULTICE

Heat the material for the poultice—bread, Kaolin, etc.—by standing it in a jar in a pan of boiling water and simmering until heated through. Spread evenly on a piece of gauze and fold over the edges of the gauze to cover. Apply to the affected area and cover with jaconet and a pad of cotton wool. Hold in place with bandage.

RHEUMATIC FEVER

Owing to the risk of damage to the heart, absolute rest in bed for a prolonged period is essential. The doctor will probably prescribe aspirin and cortisone. The bedclothes, as light as possible, should be lifted off any affected joints by means of a wire cradle. The patient is best nursed between blankets.

SHINGLES (HERPES ZOSTER)

This is a painful eruption of the skin over the course of a nerve. Calamine lotion helps to soothe. Avoid pressure on the affected part. Shingles is cross-infective with chicken-pox and either may be caught from the other. Adults suffering from shingles should avoid contact with children.

THE TEMPERATURE

The normal temperature in the mouth is $98.4\frac{1}{2}$ F.; in the rectum about a degree higher, and in the groin or armpit a degree lower. A clinical thermometer is used for taking temperatures and the mercury should be shaken well down before use. When taking temperatures in the mouth, make sure that the patient has not recently had a hot or cold drink. The thermometer should be underneath the tongue and the lips closed. Leave for a full minute. When taking temperatures in the armpit or groin, wipe the skin dry first as moisture affects the reading. High temperatures may be reduced by sponging the patient down with tepid water.

PULMONARY TUBERCULOSIS

Cases should always be under medical supervision. Good food, extra fats, eggs, milk, and plenty of fresh air are essential. To avoid infection of others in the household, patients must use a sputum mug and cover the mouth when coughing. Hands should then be washed, else the germ will be carried to everything touched. Crockery and

cutlery should be marked and washed separately. Handkerchiefs should be boiled separately and dropped into a bucket of antiseptic while waiting to be washed. All the family should take X-Ray tests. Children should be isolated from the patient.

Invalid Diet

GENERAL RULES

As a general rule, this should be light and easily digestible. Invalids do not usually have big appetites, so that the little they do eat must be of high nutritional value.

Milk is valuable because it is easily taken and is a nourishing food. It can be made up into custards, milk jellies, junkets, etc. Fish is easier to digest than meat, but should be steamed or grilled, not fried. Eggs are rich in food value and are best given lightly poached or beaten up raw in milk.

In feverish conditions, the diet should be mainly fluid. Provide plenty of cool, sweetened, fruit-flavoured drinks, and encourage the patient to sip them as often as possible.

Special diets may be needed in certain diseases, but patients should not be put on them without first consulting the doctor. The tuberculous patient needs extra foods (see previous page). Children suffering from acidosis, on the other hand, cannot digest fatty foods and must, therefore, have less fat and additional sugar or glucose in their diet. Those who suffer from asthma should avoid meals late in the evening. They may be found allergic to certain foods such as eggs, or fish, for instance, and these, if found to bring on an attack, may have to be cut out of the diet.

Most invalids need tempting during convalescence. Meals should be made attractive and appetizing. Never face a patient with a too-big helping. A daintily-laid tray goes a long way to making a meal inviting. Food should be as varied as possible and served up in different ways.

Care of Old People

GENERAL RULES

THE proportion of old people in our population is on the increase. While this is partly due to the effects of the War and to changes in the birth-rate, it is also due to the fact that people, on the whole,

live longer now than they used to do. We are faced, then, with the problem of looking after more and more old people. In doing so, we must aim at two things: helping the old folks in such a way that they remain happy and useful people; seeing that younger members of the family do not have to carry too crippling a burden in looking after the elderly.

One of the most important services we can do to old people is to help them keep their self-respect. They must be allowed to feel of use—to others and to themselves.

Old people should be encouraged to do as much as possible for themselves, unless they are sick or so infirm as to be bedridden. Lying in bed, unless absolutely necessary, for long periods is bad because the muscles get out of trim and it is difficult for old folk to find their feet again afterwards. Elderly people should be encouraged to remain as active as possible, to lead a normal life, and to get out and about as much as possible. They should be given some definite responsibility in the household—such as doing the shopping or the mending, or whatever odd jobs they are able to do in the house or garden without over-tiring themselves. The aim should always be to keep alive in their interest in the world around them.

Living in cramped quarters with old people, as well as children, to look after, is not an easy task and calls for much tact, patience, and good humour. Old folk can be quarrelsome and interfering. Encouraging outside interests and hobbies of their own helps to keep them occupied and to prevent trouble in the home. Old people, forced to live with relations, should, if possible, have a room of their own with their own things about them, preferably downstairs. A bed-sitting room solves this problem, and it is not difficult to convert a bedroom for the purpose by adding a comfortable chair, a small table, and the few extra comforts that make a room more attractive to sit in. Such a room both gives the old person a little much-needed peace and quiet, and, at the same time, allows the other members of the household more freedom.

Bed-ridden old people present different problems. Here the main question is one of nursing. Avoidance of bed sores is most important. A water-bed, air cushions or the latex type of bed, designed to give extra buoyancy, are of great help. Avoid feather beds, as these soon become lumpy. Special attention should be paid to those portions of skin exposed to pressure, such as that covering bony prominences of the hips and spine. After washing with soap and water, dab on methylated spirits to harden the skin, and powder well. Change the patient's position every few hours. Prop up as far as possible to avoid fluid accumulating in the base of the lungs and causing pneumonia.

Sleep is often broken in elderly people, who tend particularly to be wakeful in the early hours of the morning. A hot drink at bed-time helps. In many cases a mild sedative is useful, and, even if not required, its presence ready mixed at the bedside gives the confidence needed to get off to sleep.

Appetites may need coaxing. It is best to give small amounts of easily digestible food at frequent intervals. Attention to the bowels is important. Most bed-ridden patients need a mild purgative every few days. A small daily dose of salts may be sufficient. If not, an infusion of senna pods is one of the best purgatives for regular use.

The Sick Room

CHOOSE a light, quiet, airy room, neither too hot in summer nor too cold in winter, and away from the smells of the kitchen. See that the windows open, for sick-room windows must be open day and night. Take out unnecessary furniture, ornaments or hangings, so that dusting is cut to a minimum. Rugs are better than carpets, as they can be taken out and shaken.

The bed should stand away from the wall, with easy access to it from both sides. Avoid putting it in a draught between the door and window. Artificial light or the glare from the window should not shine directly in the patient's eyes. A screen is useful for shading bright light or for keeping out a draught. Running water is an advantage; otherwise there should be a wash-basin and jug of water, soap and clean towel for washing the attendant's hands.

Where the illness is likely to be long and tedious, a small wireless set by the bedside is a great boon to the average patient.

STOCKING A HOME MEDICINE CHEST

The chest or cupboard should either lock or be placed out of reach of the children. Include a clinical thermometer, bottle of antiseptic, surgical or methylated spirits, cotton wool, white lint, talcum powder, aspirins, castor-oil, Epsom salts (other purgatives if needed), olive oil, bicarbonate of soda, a graduated medicine-glass and a hot-water bottle. Additions can easily be made from time to time as they are required. (See also FIRST AID BOX, p. 248)

PART 10—BRINGING UP THE FAMILY



Preparing for a Baby's Coming

THE EXPECTANT MOTHER

If you think you are going to have a baby, go to see your family doctor, the midwife or a local welfare centre to have the pregnancy confirmed as soon as possible. Under National Health Service there is no charge for this, whether you pay your National Insurance contributions or not. The doctor or midwife will give you a certificate of pregnancy, which should be taken to the local Pensions and National Insurance Office. You will receive a milk book, entitling you to a pint a day at 1½d. a pint, or free if income is below certain level, and coupons for orange juice, concentrated, 6 oz. bottle for 5d., or free if eligible for free milk, and for free vitamin A and D tablets or cod-liver oil. These last are obtainable from the ante-natal clinic, maternity and child welfare clinic, and sometimes from special local centres.

ANTENATAL CARE

The family doctor may arrange to look after you or may suggest a doctor in the neighbourhood who specializes in maternity work. You will be asked to sign a form, of which you receive part, acknowledging that you have been accepted as a maternity patient by the doctor, who is paid a special fee under the National Health Scheme. Your doctor may be seen at his surgery or at the antenatal clinic.

THE MIDWIFE

The midwife should be booked promptly through the Maternity and Child Welfare Department of the Local Authority, if the confinement is to be at home. She will attend the confinement, calling in the doctor if necessary, and will visit your home regularly for a fortnight after the birth.

HOSPITAL ACCOMMODATION

This is available if considered necessary by the doctor, and it should be booked early—usually through him. If, however, a hospital confinement is desired because home conditions are unsuitable, application should be made through the Medical Officer of Health. Unless a private ward is booked or the confinement is in a private

nursing home, hospital accommodation and services of any necessary specialists are free.

DOMESTIC HELP

This is available after or during the confinement in many districts through the Home Help Service. The doctor or midwife or clinic will advise where to apply. A charge is made by the Local Authority unless this would cause hardship.

MATERNITY CLOTHES

Pressure is harmful to an unborn baby, so the ordinary corset should be replaced by a comfortable maternity belt, which may be bought ready-made, or may be made at home. Brassieres are necessary to support breasts during pregnancy and lactation. Petticoats and vests and nightdresses may be opened at the side seam when the figure becomes larger and a wedge-shaped gusset inserted, which can be removed after the birth of baby. Gussets can be put into knickers and gathered into a yoke fastened on each side with tapes, or elastic-topped knickers may have elastic lengthened as required; maternity frocks should hang from the shoulder. Many attractive styles are now available. An adjustable, wrap-over skirt attached to a sleeveless top and worn under a smock is useful. A straight coat of the 'tent' type is best. Shoes should have reasonably flat heels.

LAYETTE

The minimum needed will be 4 knitted vests, 4 pairs socks or knitted booties, 4 day-or-night gowns, 4 matinee jackets, a carrying shawl or blanket, 6 bibs, 2 dozen soft Turkish towelling napkins (30 in. square), 2 dozen muslin napkins, same size. A couple of soft head-shawls or bonnets are optional extras. Any additional vests and jackets should be in a size larger as babies grow so rapidly. All materials should be soft, light, warm, porous, easy to wash, and non-inflammable. Garments should be loose, have no restricting bands, and easy to put on and off.

NURSERY EQUIPMENT

A drop-sided cot is most economical, but a Moses basket or wicker cradle will do for the first six months. Prams cost twelve to sixteen guineas or more now, but a good secondhand one can be had for much less. The bath can be *papier mâché* or rubber, or, with a rubber mat at bottom, zinc or enamel. Bedclothes may be used for both cradle and pram, and should consist of a flat pillow, if wished. but the pillow must *not* be stuffed with down or feathers; mattress, preferably of hair; rubber square; blanket about 70 in. by 44 in.;

small blanket about 17 in. by 36 in.; 4 cotton underblankets about 27 in. by 36 in.; 1 pram cover or light eiderdown. Baby's basket should contain: small sponge, soft hairbrush, large safety-pins, pin-cushion attached to basket, blunt-ended scissors tied to basket, baby-powder, zinc and castor-oil ointment, weak boracic lotion, roll of cotton wool, packet of tissues, needles and cotton. A rubber lap-sheet or apron and a small chamber-pot are needed.

PREPARING FOR CONFINEMENT AT HOME

A STERILIZED outfit must be obtained (midwife or clinic will explain where to get it), floor and bed must be thoroughly scrubbed, curtains and cushions removed, mattress and pillows beaten out-of-doors, and then mattress cover and pillow slips, that have been freshly washed, ironed and aired, put on. Blankets should be newly washed or cleaned. Plenty of clean, even if old, sheets must be available. A rubber sheet under a draw-sheet will protect the mattress. Newly washed and ironed clothing should be ready for the mother, also three towels or face-cloths for her use. A dozen sanitary towels are needed. A pail with lid should be provided for articles to be burned and a zinc bath for those to be washed. The doctor or midwife will require two basins, a plentiful supply of hot water, two jugs, good plain soap, two boiled nail-brushes, two pudding bowls. If the bed is low, the midwife may like it raised on wooden blocks.

AMBULANCE

The Local Health Authority provides, free, an ambulance to take expectant mothers to hospital for confinement.

FINANCIAL HELP

A maternity grant of £9 is payable if you yourself or your husband are covered by the National Insurance Scheme. A maternity allowance of 36s. a week for 13 weeks, beginning 6 weeks before baby is expected, is payable if you are employed. If you yourself contribute as employed or self-employed, you can claim the new rate of 32s. 6d. a week for 18 weeks, beginning 11 weeks before week of confinement. A lump sum of £3 is payable if confinement is at home or in the house of a relative or friend. Full particulars of *how* and *when* to apply are given in leaflet N.I.17. obtainable with claim form from your local Pensions and National Insurance Office or Welfare Centre.

LITERATURE

Booklets on clothing, diet, care of baby and mother, and paper

patterns may be obtained from the National Association of Maternity and Child Welfare, 5 Tavistock Place, London, WC1 (which sells also an excellent maternity belt for 12s. 6d. post free), and from the National Baby Welfare Council, 29 Gordon Square, London, WC1. The latter will advise individual parents on their problems.

When Baby is Born

REGISTRATION OF BIRTH

EVERY birth must be registered with the local Registrar of births within 42 days in England or Wales, and within 21 days in Scotland. The registration must be done by father or mother; failing them, by the occupier of the house in which birth took place, a person present at the birth, or the person in charge of the child.

The Registrar of Births gives a form which must be taken to the Pensions and National Insurance Office. Every child under 5 is entitled to 7 pints of milk a week at 1½d. a pint, or free if the parent's income is below a certain level. Cod-liver oil (free) and orange juice, 5d. a bottle (or free if milk is free), are available through the Maternity and Child Welfare Clinic, and sometimes from special local centres.

THE HEALTH VISITOR

The visitor will call to advise about the health of mother and baby after the midwife has ceased her regular visits.

BAPTISM

The Prayer Book recommends that an infant should be baptized on the first or second Sunday after its birth. A delicate child may be baptized at home, but in most denominations a baptism is performed towards the end of the morning or afternoon service in church, and usually, if the mother is well enough to go out, when the child is about one month old. (See CHRISTENING, p. 273)

CIRCUMCISION

A Jewish male child is usually circumcised on the eighth day after birth, either at home or in the synagogue. Circumcision, however, is not a sacrament, and not all Jews have their sons circumcised. Gentile baby boys are sometimes circumcised by a doctor for medical reasons, and in a different manner from the Hebrew rite.

CHURCHING OF WOMEN

Women members of the Roman Catholic Church and of the Church of England may, if they wish, go to church for a special thanksgiving after childbirth. The woman kneels while the priest reads a psalm. In the Roman Catholic Church she kneels in the vestibule and is then sprinkled with Holy Water, led into the church and, in both churches, a prayer of thanks is offered. She gives a thank-offering.

MATERNITY DOCTOR

A mother should be examined by the maternity doctor about six weeks after the baby is born to make sure that everything is right. She can then make arrangements for the baby to be put on a National Health Service doctor's list, if she wishes this.

MATERNITY AND CHILD WELFARE CLINIC

The baby should be taken regularly to be weighed, examined by the doctor, records of his progress kept, and advice given.

VACCINATION

This is no longer compulsory, but it is usually wise to have a healthy child vaccinated against smallpox within six months of its birth. Diphtheria immunization is not compulsory either, but the authorities believe that if 80 per cent of all children were immunized before the first birthday, diphtheria could be wiped out. Both vaccination and immunization can be done at the Welfare Centre or clinic, free of charge. (See also **INFECTIOUS DISEASES**, p. 251)

Adoption of Children

LEGAL ADOPTION

LEGAL adoption is effected by an order made by the High Court, a county court, or a magistrate's (juvenile) court, and in Scotland by the Court of Session, any Sheriff Court, or any juvenile court. Any person under 21 who has never been married may be adopted either by another individual or by a husband and wife, one of whom is at least 25 years of age and also at least 21 years older than the child. An illegitimate child may be adopted by either parent, notwithstanding an age difference of less than twenty-one years. Certain consents are required. The application will be heard in private, and the court will appoint a person to watch the child's interests and make

exhaustive enquiries. There must now be a probationary period of three months before the order is made during which the child must have resided with the proposed adopter under the supervision of the Local Authority. The welfare of the child overrides all other considerations of which the court takes account in making or refusing an order.

SOCIETIES

Those wishing to adopt a child are well advised to get in touch with an Adoption Society, such as the National Adoption Society, 4 Baker Street, London, W1. Adoption Societies are supported by voluntary subscription, for it is illegal to give or take any reward in connection with an adoption, though the child's maintenance before adoption may be paid for. A Society interviews and makes necessary enquiries about would-be adopters, taking up references and visiting the home to ensure that the applicants are suitable people and are in a position to care for the child. If all is satisfactory, the child goes on a three-months visit. Applicants may, after that, give the child back to the Society, or, during that time, the Society may ask for the child if conditions are not what was hoped. At the end of the probationary period, the Society helps with the legal formalities of the adoption.

A parent or guardian who, wanting to have a child adopted, applies to an Adoption Society, receives a form on which full particulars of the child and its parentage must be filled up, including the reason for desiring an adoption. A medical examination of the child and a blood test are made. Satisfactory references must be given. Adoption is for life and the parent or guardian must give up all claim, including right of access, to the child.

EFFECT OF ADOPTION

When an adoption order has been made, all parental rights and duties appertain to the adopter, who is liable to maintain the child, and may receive Family Allowance (if appropriate) and Income Tax allowances in respect of it. As regards persons dying after the date of the order, an adopted child is now placed in the position of a natural child with regard to succession to property of the adopter. As from 1 January 1950 no marriage between adopter and adopted can take place. In Scotland, however, adoption does not affect the legal rights of the child in his natural parent's estates; nor does the adopted child acquire any legal rights in the property of the adopter apart from what may be conferred by will. (See also **MAKING A WILL**, p. 299)

Education

THE LEGAL ASPECT

UNDER the Education Act, 1944, it is the duty of the parent or guardian to cause the child to receive efficient full-time education between the ages of 5 and 15; when practicable the upper limit will be raised to 16 years. If the child attains school-leaving age during a school term, the duty is to attend school until the end of that term. A child may be educated otherwise than at school, provided the education is sufficient in the judgment of the Local Education Authority. Failure to ensure that the child attends school regularly (which in the case of a child over 6 means 200 attendances in 12 months) means that the parent may be fined £1 for the first offence, up to £5 for the second, and for the third up to £5 fine or up to one month's imprisonment. Exemptions include absence with leave, absence through illness or other unavoidable cause, absence for religious observance, and absence caused by the fact that the school is not within walking distance of the child's home, no transport or boarding arrangements, or transfer to a more convenient school, having been made by the Local Authority. Limits: 2 miles if under 8 years; 3 miles if over 8 years.

The conditions of a contract with a private school should be carefully studied before signing. By custom a parent is bound to give a term's notice of removal unless this condition is specifically excluded at the time of contract. The contract may further provide that on removal without notice a term's fees are to be paid. If there is no such provision, only the schoolmaster's lost profit can be recovered.

RELIGIOUS INSTRUCTION

ALL county and voluntary schools, both primary and secondary, must begin the day with a collective act of worship and religious instruction must be given. Children can be exempted from either at request of parents.

EMPLOYMENT OF SCHOOLCHILDREN

THIS is illegal until the child is within two years of school-leaving age; and a child of 13 may not be employed for more than two hours on any Sunday or any weekday on which he is required to attend

school, or before close of school hours on a weekday. The law is relaxed or strengthened according to bye-laws, and the Local Authority can take action where it considers the a child's health is being damaged or his education obstructed by the work he is doing. A parent is liable to a fine of £5 for failure without reasonable excuse to submit a child for medical examination.

TYPES OF EDUCATION

THE Local Education Authority must provide nursery schools for children between 2 and 5 or nursery classes in other schools. There is no compulsion to send a child under 5 to school.

Primary Education takes children up to 11 years of age; secondary education governs their training from 11 upwards. Both types of education must be provided by the Local Education Authority and are completely free.

Further education is available in technical and commercial colleges, art schools, evening institutes, community centres, county colleges, and youth organizations. When county colleges are provided by Local Authorities, it will be compulsory under the 1944 Act for all young people under 18 not in full-time attendance at an educational institution to attend such a college for one whole or two half-days a week for 44 weeks in the year, or for a continuous period of eight weeks, or for two periods of four weeks.

SECONDARY GRAMMAR SCHOOLS

These include schools aided by the Local Authority ('post-primary schools'); direct-grant schools, aided by the Central Authority; public schools, few of which receive public aid; private schools, which receive no aid. Direct-grant schools may charge fees (approved by the Minister) but are bound to offer at least 25 per cent free places for children from grant-aided primary schools; the Local Authority may reserve a further 25 per cent of places for which it will pay fees. At independent schools (e.g. 'public' schools such as Eton and Winchester), the Common Entrance Examination is designed for boys with preparatory school background or education by private tutor. Fees and costs are high. At a date to be determined independent schools will be subject to inspection by the Ministry of Education. At the time of writing these schools may charge whatever fee they wish and are subject to no control by the public authority.

ASSISTANCE TO PARENTS

In the case of direct-grant schools, the Ministry has suggested that where the gross income of a family with one child does not

exceed £7 10s. a week no fees shall be payable; a higher gross income is allowed if there are more dependants. If the child's parents find it difficult to clothe the child or pay travelling expenses, the Local Education Authority may make a maintenance allowance. Aid is very occasionally given to parents sending children to an independent school, on compassionate grounds, as for example to a professional man wishing to send his son to a public school, who is suddenly stricken with illness and in financial difficulty; Local Authorities, however, use this power sparingly.

SCHOLARSHIPS

The Ministry of Education awards a large number of State scholarships on the result of the General Certificate Examination. The value of the award depends on the needs of the scholar. The whole cost of higher education, including maintenance during vacations, is intended to be met. In general, no award is made to the child whose parents' income exceeds £2,000 a year, though it is proposed in the future to make a basic annual grant of £30 to a scholar whatever the family income. Local Authorities also award scholarships. Universities also award scholarships and endowments, colleges at Oxford and Cambridge offering scholarships of up to £100 in value which they supplement, often generously, if the student is in need. The Ministry itself will also supplement a college award.

TECHNICAL EDUCATION

THIS is usually provided by Local Educational Authorities at technical and commercial colleges, art schools, and evening institutes. Arrangements are usually made under schemes of training by which practical experience in a works is correlated with technical studies at a college; in some cases release is granted to younger employees, mostly under 16, for the continuance of general education. In either case wages are paid for the period of attendance. Training for technicians is largely through national certificate courses conducted by professional institutions (e.g. the Institution of Mechanical Engineers) and the Ministry. Normal length of course is three years, usually covering the years 16 to 19, with a total on the average of about 200 hours a year; and the higher certificate a further two years.

UNIVERSITY EDUCATION

THERE are at present fifteen degree-giving universities in England and Wales and four in Scotland and four university colleges without power to confer degrees. University degree courses usually

extend over three and occasionally four years; in medicine seven years are required. In general, degree examinations are taken in two stages. All the universities provide for post-graduate work and for research. The Ministry offers annually about 360 State Scholarships tenable for honours degrees. The Ministry also awards about 30 Royal scholarships and studentships in science tenable at the Imperial College of Science and Technology and about 60 scholarships, exhibitions, and free studentships at the Royal College of Art each year. It is estimated that 40 to 50 per cent of full-time students at the universities receive financial assistance from other than private sources. In 1951 school certificate and higher school certificate examinations were superseded by the General Certificate of Education examination, with papers set on three levels—ordinary, advanced and scholarship.

ADULT EDUCATION

DAY and evening classes, covering a wide range of vocational, recreational and social subjects, are conducted by Local Education Authorities throughout Great Britain.

Complementary to adult education provided by local bodies are the thousands of courses provided by universities and voluntary bodies, the most important of which is perhaps the Workers' Educational Association. This association is concerned primarily with courses, as a rule of a less advanced character, lasting a year or a term. The universities extra-mural studies, consisting chiefly of evening classes, usually comprise tutorial studies of three years' duration. There are 23 settlements affiliated to the Educational Settlements Association which make a special feature of handicrafts and practical work.

ARTICLES AND APPRENTICESHIP

ENTRANCE to certain trades and professions is obtained by means of apprenticeship and articles. Almost invariably a premium is charged by the employer. This may be (as for example in the case of a solicitor) as much as £500, and earnings during the 'articled' period are usually very small. Apprenticeship to a trade or industry (e.g., printing, building) costs less and may extend over seven years. When an articles or apprenticeship agreement is drawn up parents should consult a solicitor.

WHERE TO FIND GUIDANCE

AS STATED at the beginning of this section, the Education Act of

1944 is the basis of the educational system, but it will be many years before all its statutes come fully into operation. The idea of the new Act is that the parent should seek the guidance of the Local Educational Authority, who will advise on facilities for free education available at the time of asking. The following guidance will help.

For a child who needs Nursery School education, consult your Local Education Officer. For a child who has not gained a special place, for a grammar school, try the Local Education Officer first. If this is not successful, apply to an independent or direct grant school. If you are successful, ask for help towards maintenance from the Local Education Authority. For a boy who is leaving the technical school and who needs a recognized apprenticeship, write for an interview with the Youth Employment Officer (address in the local 'phone book). For a child just past the certificate stage, who is hesitating about a career, there should be a careers master or mistress at the grammar school, to whom you should write. If this is no good, consult the headmaster on the chances of going to a university. If the child is awarded a university entrance you will probably get all the financial aid required. If the child is unsuited for academic work, accountancy, optics and pharmacy offer good openings. If a premium is too costly, consult a local member of the profession the child is interested in. In all eventualities, do not hesitate to consult the Local Education Officer and the child's headmaster: it is their job, and it is in their interest, to give advice on individual cases.

Responsibilities of Parents ¶¶

POSITION IN LAW

THE law regards the parent as responsible for his children and gives him as a rule the right to custody of them. An infant under 21 is incapable by law of entering into some of the common transactions of life, but a parent is not responsible for the infant's contracts, unless he has expressly made himself liable; nor for his acts, unless he has instigated the child to do some wrongful act.

GUARDIANS

A PARENT may delegate his rights and his duties to a guardian, and may appoint by will a guardian to act after his death, jointly with the surviving parent. Each parent is entitled to appoint such a 'testamentary guardian'. While both parents are alive they have

equal rights, and the court will settle disputes between them. The welfare of the infant is the sole criterion by which the court is guided. The court will interfere to protect a child from a parent or guardian who abuses his position.

CONSENT TO MARRY

THE minimum age for marriage is 16, but, except in Scotland, a person under 21 requires the consent of his or her parents or guardian. If this is not forthcoming, the local bench of magistrates may authorize the marriage despite the parent's objection. The applicant's well-being is the guiding factor. (See also FAMILY EVENTS: GETTING MARRIED, p. 274)

¶¶ In Scotland the period of minority is subdivided into pupillarity (up to the age of 14 in males and 12 in females) and puberty or minority which continues to 21 in both sexes. Pupils have no power to act in the legal sense at all, but minors can act with the consent of their curators. The father of a pupil is known as the pupil's tutor and has the duty of protecting the pupil and managing his property. Failing the father, the responsibilities devolve on the mother (tutrix). After pupillarity the law recognises the minor as a person and the capacity in which the parents act changes and is known as curator or Administrator-in-law. Nevertheless the father, whom failing the mother, is still responsible for the child's welfare, and still has the power of managing the child's property. Where both parents are dead and neither has by will or otherwise appointed a guardian, the court will, if applied to, appoint a person to act in that capacity.

PART II—FAMILY EVENTS



Christening of Children

GENERAL PROCEDURE

A BABY is usually christened when between three and six weeks old. The first step is to make arrangements with the clergyman. The ceremony is normally in church. (See BAPTISM, p. 264) The clergyman usually receives a fee, but it is never discussed with him. It is an expression of gratitude for the time he spends in performing the ceremony and is given in an envelope by one of the parents with a word of thanks, usually when the clergyman is given the written particulars (see p. 274) which he needs for the church register.

GODPARENTS

A boy usually has two godfathers and one godmother; a girl has two godmothers and one godfather. Only relatives or intimate friends should be asked to stand as godparents and they must also be people who believe in the teaching of the Church, for they promise to see that the child is brought up in the Christian faith and the doctrines of the Church and on his behalf renounce sin and declare their own belief. If the godparents cannot be present at the ceremony, they may be represented by proxies. By custom, godparents give the child a christening present, usually silver, but nowadays money or saving certificates are often given. Godparents should give the child a birthday present each year. The child later considers this an important part of their duties.

INVITATIONS

These are sent only to relatives and close friends, and are informal: 'Baby is to be christened at St Jude's Church on Sunday week after Evensong, and John and I should be so pleased if you could be present and would come back to tea afterwards'. The clergyman and his wife should be invited to tea, or whatever hospitality is being offered.

DRESS

Elaborate christening robes are not usual today, but a long frock looks better than a short one. Bonnet and wrap should be

taken off before the godmother carries the infant to the font. Parents and friends wear the sort of clothes in which they would normally go to church.

CEREMONY

The godmother holds the baby during the ceremony and places him on the left arm of the clergyman when the time comes for the baptism, after which the clergyman hands him back to her. She replies when the clergyman asks for the child's name, which should be written down and handed to the clergyman beforehand, together with the parents' full names. The godmother should be careful to mention only the child's christian names. Parents and godparents stand near the font during the rite and afterwards return to their pews for the remainder of the service, or leave the church if the christening has taken place at a special service.

CHRISTENING PARTY

Whether the entertainment offered afterwards is lunch or tea, the two essential features are the christening cake and the drinking of the baby's health. Both take place at the end of the meal, at which, if it is lunch, the clergyman should be asked to say grace. Usually the baby is kept in the room for only a few minutes and his health is proposed informally by someone raising his glass and, looking at the father and mother, wishing the child long life, prosperity and happiness. Then everybody rises and drinks, and the father says something simple, such as, 'Thank you all very much, and thank you for coming along this afternoon. Mary and I hope our son will be as lucky in his friends as we have been. It's been grand to have you with us.' The toast is usually drunk in wine, but a christening party should never become a cocktail party.

Getting Married

THE LEGAL POSITION

A PERSON must be 16 before he or she can be married in the United Kingdom. A marriage of anyone under 16 would be void and any children of such a marriage would be illegitimate.

MARRIAGE OF MINORS

A minor between 16 and 21 must, in England, Wales, or Northern Ireland, have the consent in writing, on a form obtainable from the Superintendent Registrar, of *both* parents, or of the parent who has

custody of the minor, or of a guardian if parents are dead.†† If consent is refused, a minor may apply to a magistrate's court, a county court, or the High Court for permission to marry. Parents or guardian are notified and may appear to give reasons for refusal, which the magistrate or judge may overrule if he thinks fit.

PROHIBITED DEGREES

The relationships listed in the Prayer Book within which a man or woman may not marry still remain the law of the Church. The State, however, allows a man to marry:

His deceased wife's sister

His deceased brother's widow

His deceased wife's brother's daughter

His deceased wife's sister's daughter

His father's deceased brother's widow

His mother's deceased brother's widow

His deceased wife's father's sister

His deceased wife's mother's sister

His brother's deceased son's widow

His sister's deceased son's widow

If, however, the word 'divorced' had to be substituted for the word 'deceased', such a marriage would be illegal.

MARRIAGE IN ENGLAND AND WALES

This may be within the Church of England or Wales:

(1) After banns published in the church on three Sundays in the parish or parishes in which the parties live, and also in the church in which they intend to marry, if this is not the parish church of either of them. The certificates of publication of banns are valid for three months. Fees vary in different parishes, but are usually about 2s. 6d.

(2) By Surrogate's Licence issued by the Registrar at the Diocesan Registry and available for marriage in the church named on the licence in the parish where *one* of the parties must have resided for 15 days. Licence is valid for three months and marriage may take place immediately it is issued. Stamp duties and fees vary from £1 15s. to £2 12s. 6d.

(3) By Archbishop of Canterbury's Ordinary Licence, obtainable from the Faculty Office. 1 The Sanctuary, Westminster, London, SW1. Licence remains valid for three months for marriage in

†† In Scotland such consent is not necessary.

church named on it and 15 days' residence in the parish in which church is situated must be proved. Fee, £2.

A Special Licence is granted by the Archbishop of Canterbury in exceptional cases, such as illness or a sudden order to go abroad. The special licence permits the marriage to take place at any time in any place. Application should be made to the Faculty Office, 1 The Sanctuary, Westminster, SW1. Fee, £25.

MARRIAGE OUTSIDE CHURCH OF ENGLAND OR CHURCH OF WALES

The first step is to give notice to the Superintendent Registrar, who will issue:

(1) A Certificate without Licence, if both parties have resided in the district seven days, or, if parties live in different districts, notice must be given by each party in district in which he or she has resided for seven days. A certificate or certificates will be issued 21 days (not counting Sundays) after notice has been given to Registrar. Fee, 7s. to 9s.

(2) A Certificate with Licence can be obtained one clear day (not counting a Sunday) after notice, if the party giving notice has lived in the district for 15 days. Fee, £2 14s. 7d.

After such licence or certificates are obtained, marriage may take place within three months either in a registrar's office or in a non-conformist church, where arrangements for ceremony must be made with the minister or priest. In some churches and chapels the officiating clergyman or other church official has authority to complete necessary forms after the ceremony; in others the registrar must be present. The registrar or minister will give information about this. Hours: 8 a.m. to 6 p.m., except for marriage by special licence or for Jewish marriages, which may take place in any building at any hour.

WITNESSES

The law requires that there shall be two witnesses to a marriage in addition to bride, groom, and officiating clergyman or registrar.

MARRIAGE IN SCOTLAND

(1) By proclamation of banns on *two* Sundays in appointed church in district or districts in which parties have lived for 15 clear days before application to the Clerk of Session of the church. After the second proclamation a certificate is issued by clerk or

minister. It is valid for three months and marriage may take place anywhere in Scotland. Fee, 2s. 6d.

(2) By publication of Notice, each party giving notice of marriage to the Registrar of the District in which he or she lives or has lived for 15 clear days. The notice must be displayed for seven days, when, if no objection is lodged, the Registrar will issue a certificate of publication. The marriage may then take place anywhere in Scotland and the certificate holds good for three months. Fee, 2s. 6d. Where parties live in different districts each must produce a certificate of publication of banns or of notice; one may choose publications of banns and the other publication of notice.

(3) By Sheriff's Licence, which, if granted, would come into force immediately, but would be valid for only 10 days. One of the parties must have resided in Scotland for 15 days immediately before the application or must normally live in Scotland. Often a solicitor is engaged to prepare the application. The court fee is 15s.; the solicitor's fee would be additional.

Having obtained these notices or licence, the parties must go to the Registrar of the District in which the marriage is to be celebrated and obtain from him the Marriage Schedule, which he will partly fill up and which must then be taken to the minister who is to perform the marriage ceremony. The signed, completed schedule must be returned to the Registrar within three days. A copy of entry in register costs 2s. 6d. at the time and 3s. 1d. if applied for later. Marriage at a Registrar's office in Scotland must be preceded by Publication of Notice or a Sheriff's Licence; publication of banns is not accepted. Fee, 5s. for conducting the ceremony.

Where one party resides in England and the marriage is to be in Scotland, the one must bring with him a certificate from the Superintendent Registrar of the district in which he resides (obtainable 21 days after giving notice). This must be done also if a person going abroad wishes to be married in a British Consulate on arrival.

ETIQUETTE

WEDDING INVITATIONS

Only bride, groom, clergyman and/or registrar, and two witnesses need be present at a marriage ceremony, and usually only these and perhaps parents attend a register office wedding, other relatives and friends being invited to a reception afterwards. It is usual to invite relatives and friends to a church ceremony. If it is to be a large wedding the invitations should be in the third person and should go out in the names of the bride's parents.

*Mr and Mrs Blank
request the pleasure of the company of
.....
at the Marriage of their Daughter
Mary Edwina
to
Mr John Dash
at St Jude's Church, Largeton,
on Tuesday, 15th April, at 2 o'clock
and afterwards at 16 Rose Street*

R.S.V.P.

To a small quiet wedding, notes of invitation are written by the bride's mother or by whoever is to act as hostess.

Dear Mrs White,

Mary and John are to be married quietly at a register office on Thursday week, the 16th. It would give us great pleasure if you and your husband would join us after the ceremony at four o'clock at Brown's Hotel.

Yours sincerely,

The bridegroom should give the bride's mother a list of his relatives and friends who are to be invited.

WEDDING PRESENTS

These should be acknowledged the day they are received. The bride writes notes of thanks for all presents to her and for joint presents; the bridegroom acknowledges presents addressed to him personally.

EXPENSES

The bride's parents pay for: trousseau, floral decorations of church, organist, choir, awning and carpet (if these are required), printing and postage of invitations, printing of leaflets giving order of service and hymns, reception, cars to take bride and her father, her mother, other members of family to the church, cars that bring party (except bride) from church to reception, and any cars ordered to meet guests, though sometimes guests pay for these cars themselves. The bridegroom pays for: licence or publication of banns, ring, bride's flowers, bridesmaid's flowers, spray for bride's mother and his own mother, buttonhole for himself and best man and ushers, if any, fees to clergyman and vergers (who will usually tell scale of fees expected in that particular church—guinea to five guineas to clergyman, 5s. to £2 to vergers), car to take best man and himself

to church and to take bride and groom from church to reception and later to station or hotel, presents to bridesmaids.

CHURCH DECORATIONS

The clergyman should always be asked for permission to have the church decorated and consulted about the convenient time for doing so.

ORGANIST AND CHOIR

The organist should be consulted about the music, the final choice being the bride's. If a personal friend is to play the organ, the church organist's consent must be obtained and the usual fee (which he will state) paid to *church* organist.

BEST MAN'S DUTIES

He must see that all arrangements are carried out smoothly, taking charge of all financial transactions (for which he should get money from bridegroom in advance), handing fee in envelope to clergyman just before the ceremony, fee to verger, car hire, and any tips; to see that he and the bridegroom arrive twenty minutes before ceremony, and five minutes before bride's arrival, take their places in front pew on right; see that ushers have list of guests and that bridesmaids have arrived; to stand on right of bridegroom during ceremony and produce ring at right moment; to walk with chief bridesmaid to vestry afterwards; after the signing of the register, to take groom's hat and gloves to church door, summon car and see bride and groom off; to supervise departure of bridesmaids, father and mothers, and guests; to reply to the toast of the bridesmaids at reception; to see that tickets and luggage are ready and that departure for honeymoon goes smoothly.

BRIDESMAIDS

Only the chief bridesmaid has any part on the ceremony. She stands behind the bride, ready to take her gloves and flowers at the time when bride and groom join hands.

THE CEREMONY

THE BRIDE

She should remove her engagement ring before the ceremony, and replace it before the reception. A widow removes her wedding ring, which she should not wear again.

Friends of the bridegroom are ushered into pews on the right of

the aisle, friends of the bride on the left; parents and close relatives occupy front pews on either side. The mother of the bride is usually escorted by a male relative, as the father escorts the bride. The bride walks up the aisle on the right arm of her father, followed by the bridesmaids (if two, they walk together; if more, chief bridesmaid leads and others follow in pairs). The bride stands on the left of the bridegroom; her father stands a little behind until, if service is in the Church of England, he has said 'I do', in response to clergyman's, 'Who giveth this woman to be married to this man?'; otherwise the father sits in the pew beside the bride's mother. After the ceremony, the clergyman leads the way to the vestry, followed by the bride and groom, bridesmaids and best man (with chief bridesmaid), parents, and close relatives.

LEAVING THE CHURCH

The order of procession is: bridegroom with bride on left arm, bridesmaids, bride's mother on left arm of groom's father, groom's mother on left arm of bride's father, remainder of vestry party paired off as well as possible with members of bride's family walking with members of groom's. The usual music is Mendelssohn's *Wedding March*. The congregation remains seated until the procession has left the church.

THE RECEPTION

THE BRIDE's father and mother receive guests near the door. The bride and groom stand further back in the room and guests pass on to congratulate them. They should introduce to each other guests whom either has not met before: 'Mary, you've heard me speak of Aunt Jane'. Refreshments may be on a buffet from which guests help themselves to sandwiches, cakes, tea, coffee, cocktails, or may be a sit-down luncheon. If the latter, the bridal party sits at the top table, on which is the wedding cake. They sit with the bride and groom in centre, paired as when they left the church. The clergyman and his wife should sit at this table; he should be invited by bride's father to say grace.

The essential features of the reception, whether luncheon or buffet tea, are: (1) the cutting of the cake, towards the end of the meal, (2) the toast of the bride and groom. (3) the groom's reply, (4) toast to the bridesmaids, (5) the best man's reply. No other speeches or toasts are necessary or usual.

The bride rises and, assisted by the bridegroom, makes a cut in the cake, using his sword if he is in uniform; afterwards the cake is

removed by a waiter, cut up, and distributed to the guests. While it is being eaten, glasses are filled, usually with champagne or other white wine, but teetotallers drink lemonade. The toast of the bride and groom may be proposed by the bride's father, by the clergyman, or an old friend of her family. The speech might be something like this:

Ladies and gentlemen:

I have been given the very pleasant duty of proposing the health of the bride and bridegroom. I feel it would be superfluous to wish them happiness. They and we are sure they are going to enjoy the best happiness of all, which is sharing one's life with the one person one loves most and being together through hard times and good times.

If anybody is making a book on the Dunmow Flitch in 19—, I'm backing this couple.

We wish them health, prosperity, and just that extra bit of luck in all their enterprises which can give such a sparkle to life. I ask you to drink to Mary and Jack.

The bridegroom replies immediately the guests have resumed their seats. He might say:

Ladies and gentlemen:

For myself and on behalf of my wife, I want to say a sincere thank you for your good wishes, and to Mr —— for his confidence in us. Mary and I are quite certain that no other couple ever had kinder friends. We think friendships are important and we mean to keep yours.

We would like you to know how much your coming here today to give us such a grand send-off has added to our happiness. We both look forward to welcoming you to our new home—though you will have to come in small numbers, for it's a tiny flat. It will have a lot of lovely things in it, though, thanks to you.

We both thank you most sincerely for all your affection and kindness, and for your toast.

The bride and bridegroom may then propose the health of the bridesmaids. He can add:

I want to say a special word of thanks to the bridesmaids who have been so helpful to my wife in the last busy weeks and who have looked so decorative today. My wife certainly is awfully good at choosing—girl friends, I mean!

Ladies and gentlemen: I give you the toast of the bridesmaids. All happiness to them!

Or a guest may be asked to give this toast, and the above speech can be adapted: 'The bride wishes me to say a special word of thanks to the charming girls who . . .'

The best man replies:

Ladies and gentlemen:

I am sure the chief bridesmaid could say thank you for herself and her assistants much more gracefully than I can. It is a great pleasure for me, all the same, to be allowed to speak on their behalf.

I agree with every word the proposer of the toast said about the charm and decorative quality of the bridesmaids. I'm sure they would like me to tell you, and to tell the bride, how much they have enjoyed being her attendants today, and they think it grand to be thanked for doing what they like. I thank *you* very much indeed on their behalf for the toast.

The bride and groom stay for only a short time after these ceremonies. The whole reception usually lasts about an hour and a quarter.

BUSINESS DETAILS

If the honeymoon is to be spent abroad, the bride should apply in good time for a passport to be made out in her married name. If she sees or writes to the passport officials beforehand, they will make out the passport in advance and send it to the clergyman or registrar to be handed to her after the ceremony.

MEDICAL CARD AND NATIONAL INSURANCE CARD

The former, together with marriage certificate, should be taken or sent to the local office of the Executive Council of the National Health Service (address from Post Office) to have name changed. A copy of the marriage certificate should also be shown to the doctor in order that the bride's name may be changed on the records. The Pensions and National Insurance Office should see the marriage certificate, in order to change the name on the card if the bride is to continue to work as an insured person; if not, the card should be returned to this Office.

STOCKS AND SHARES

A copy of the marriage certificate should be sent to the secretary of companies concerned to have the name changed on the register.

WILL

In England and Wales, but not in Scotland, a will made before marriage is automatically revoked on marriage. A new will may be made and signed before the marriage, the provisions being phrased, 'in the contingency of my marriage. . . '.

INSURANCE

The bridegroom should see to the insurance of the new home and contents, and of the wedding presents. He should consider taking

out a life assurance policy for the benefit of his wife if such provision for her in the event of his death seems desirable. (See also LIFE ASSURANCE, p. 297)

WEDDING PRESENTS

These are given to the happy pair jointly and remain joint property, so that one partner cannot legally dispose of them without the consent of the other.

MARRIED WOMAN'S NATIONALITY

Since 1 January 1949 a British woman marrying an alien retains her British nationality. A foreign woman marrying a British subject no longer automatically becomes British.

Anniversary Celebrations

COMING OF AGE

LEGALLY a boy or girl comes of age on the day *before* his or her twenty-first birthday. The celebration is usually held on the birthday. It may be a dinner party, an evening party or a dance, or a theatre party, followed by supper in a restaurant. The main feature will be the toast to the person who has come of age and his or her reply. The toast should be proposed towards the end of the meal, usually after the sweet has been eaten and before coffee is served. If the band in a restaurant is given warning, it will usually play *Happy Birthday to You* as the party arrives, and *I'm Twenty-one Today* after the toast has been drunk and before the reply. The toast may be proposed by the father or by one of the senior men present, who might say:

Ladies and gentlemen:

As the large silver key which is such a feature of the table decorations will have told you, if he hasn't already told you himself, John has today reached the ripe old age of twenty-one. Considering the responsibilities that have fallen on him since yesterday—he must now pay his own debts, poor boy, and must bear the entire praise or blame for the wife he chooses—he's bearing up with remarkable cheerfulness.

Well, he seemed to me to have solved the problem of how to be happy though young, and I'm sure he'll solve the problems of being a citizen and a man just as successfully. I ask you to drink his health and wish him the best of everything, success, happiness and a long life.

To which the birthday boy should reply:

Ladies and gentlemen:

Thank you for your good wishes. I had no idea until my father (or Mr ——) warned me just now, that being twenty-one was such a serious business. That bit about the wife, though, is exhilarating and, for tonight, anyhow, let's forget about the debts and the vote.

If I managed to be happy though young, I may say I had a lot of help from my family and my school and my friends. With your help I'm having a grand time tonight, so thanks a lot for everything.

A birthday cake may be a feature of a party at home, but is not usually so in a restaurant. The large key, covered with silver paper, should make an important part of the decorations wherever the party is held.

PRESENTS

Twenty-first birthday presents from family and close friends should, if possible, be durable, for they have great sentimental value afterwards. Invitations to the party need not mention that it is in honour of a twenty-first birthday, or a birthday at all, if it is feared that that would seem like asking for presents. At a small party of relatives and close friends, everybody will know anyhow. Relatives on both father's and mother's sides of the family should be invited.

BIRTHSTONES

January, garnet; February, amethyst; March, bloodstone or aquamarine; April, diamond; May, emerald; June, pearl, moonstone or agate; July, ruby; August, sardonyx, peridot or carnelian; September, sapphire; October, opal or tourmaline; November, topaz; December, turquoise or lapis lazuli.

SILVER, GOLDEN AND DIAMOND WEDDINGS

BY TRADITION, silver articles are given as presents on the twenty-fifth wedding anniversary, golden articles to mark the fiftieth, and diamonds to mark the sixtieth. Silver or gold pencils, pens, dress ornaments, cigarette boxes or cases, powder compacts, menu holders, table implements, such as a cucumber knife or grape scissors, are often given on the first two anniversaries, though many people compromise by giving something silver or gold in colour, or even in silver or gold wrappers. Few people could give diamonds and a compromise may be made with crystal or cut-glass, or, in practice, anything which people who must be over seventy-six are likely to find useful or delightful. A case, or even a bottle, of wine or spirits might be the solution in some cases.

NEWSPAPER ANNOUNCEMENTS

The usual method is to have the original wedding announcement reprinted under the heading, 'silver wedding', 'golden wedding' or 'diamond wedding'. The present address is sometimes added.

CELEBRATION PARTIES

Formal invitations to a dinner or evening party may include the words, 'in honour of the Golden Wedding', or, if the party is given by a son or daughter, 'in honour of his (or her) father's and mother's Diamond Wedding'. Or formal invitations or informal notes may be sent without any mention of the occasion, and guests told on arrival what the party is to celebrate. The evening's entertainment may be of any kind preferred. dancing, cards, games, or conversation, or a luncheon party might be given, but the toast to the couple must be proposed in a congratulatory speech by the eldest son or by an old friend, and should be replied to by the husband.

PART 12—FAMILY TROUBLES



Marriage in Danger

MARRIAGE PROBLEMS

ADVICE can be had on all marriage problems from the Marriage Guidance Council, 78 Duke Street, London w1, which has branches in many parts of the country. Address of the nearest branch may be had from Headquarters. The advice given is sympathetic, expert, and confidential. Other helpful organisations are: Citizen's Advice Bureaux (headquarters at National Council of Social Service, 26 Bedford Square, London wc1), Family Planning Association, 69 Eccleston Square, London sw1 (advice on use of contraceptives and problems arising from infertility), Central Council for Health Education, Tavistock House, Tavistock Square, London wc1 (sex education and education for family life), Women and Children's Protection Society, 66 Victoria Street, London sw1 (legal advice to women who have to complain about their husbands and to unmarried women who have failed to obtain assistance from fathers of their children), and from legal aid centres.

SEPARATION AGREEMENT

A HUSBAND and wife between whom 'unhappy differences have arisen' may agree to separate provided that they in fact proceed to do so. But while such an agreement is in force neither party can be said to be deserting the other. The husband is still obliged to maintain his wife, and she may make him liable for necessities supplied to her according to their station in life. The husband may discharge this obligation by agreeing to make the wife a periodical allowance. The agreement may also provide for the custody and maintenance of any children of the marriage.

MAGISTRATES' ORDERS

A wife whose husband wilfully neglects to support her, or has been guilty of adultery or cruelty, may apply for a police court order for maintenance with or without a separation clause. Care should be taken to see that the separation clause is not inserted in the order in any case where proceedings founded on desertion by the husband may

later be necessary. The maintenance ordered will not exceed £5 per week, plus 30/- per week for each child of whom the wife has custody. A slightly higher payment for the child may be obtained by applying to the police court under the Guardianship of Infants Acts.

JUDICIAL SEPARATION AND DIVORCE §§§

The High Court may grant to husband or wife a decree of judicial separation or of dissolution of the marriage on proof that the other party to the marriage has committed a specified matrimonial offence. The principal offences for this purpose are: (1) adultery; (2) desertion for at least three years before the date of the petition; (3) cruelty, which must be such as to cause injury to health or danger to life; and (4) incurable insanity lasting for at least five years.

Neither a judicial separation nor a separation order made by a magistrate enables the parties to re-marry. A decree of dissolution when made absolute does. Proceedings for divorce may not generally be begun within three years of the marriage.

NULLITY

The High Court may also annul a marriage on various grounds, the most important of which are the wilful refusal or the physical incapacity of one of the parties to consummate the marriage.

PROCEDURE IN HIGH COURT CASES

In all cases in which proceedings for nullity, divorce, or judicial separation are contemplated, a solicitor should be consulted as soon as possible. Rights may be lost by delay. Legal aid is available in suitable cases. (See *LEGAL AID AND ADVICE*, p. 296) If the petition is granted, a decree nisi is made in the first instance, and may be made absolute on application not less than six weeks later, provided that the Queen's Proctor has not in the meantime informed the Court of any irregularity in the evidence. The interval of six weeks may be shortened in urgent cases with the leave of the Court and the consent of the Queen's Proctor.

BARs TO DIVORCE

The petitioner must establish the absence of collusion between the

§§§ In Scotland, the Sheriff Court or the Court of Session can grant a decree of judicial separation (but grounds are adultery, cruelty, or habitual drunkenness). Only the Court of Session may grant a decree of divorce, which is immediately effective and does not require to be made absolute. The grounds for divorce in Scotland are the same as in England.

parties. Collusion includes an agreement to secure a divorce by the furnishing of adequate grounds. Connivance, i.e. encouragement by the petitioner's words or conduct to commit the offence—or condonation—(forgiveness and full reinstatement of the offender after the nature of the offence is known) may also be pleaded as absolute defences to a petitioner for divorce.

The petitioner's adultery is a discretionary bar to divorce; he or she is bound to make full disclosure, but the judge *may* exercise discretion in his favour and grant the divorce.

CHILDREN

The court may grant to either party (including a guilty wife) the custody of any children of the marriage. The welfare of the children is the sole consideration.

FINANCIAL MATTERS ||||

The husband is generally liable for his own and his wife's costs, whether he is petitioner or respondent. A guilty wife who has means may, however, be ordered to pay costs. A co-respondent against whom the case is proved will usually be ordered to pay costs, and damage may be awarded against him if claimed.

A wife, whether petitioner or respondent, may apply in connection with matrimonial proceedings in the High Court for an order for alimony or maintenance. During the proceedings, this is usually at the rate of a sum which will bring up the wife's income to one-fifth of the combined incomes of husband and wife. After a decree absolute the corresponding figure is one-third. If she has the custody of children, an additional sum will be ordered.

INCOME TAX

Tax at the standard rate (see also INCOME TAX, p. 308) must be deducted by the husband on making payment to the wife of periodical payments due under a separation agreement or under court order unless it is an order (not an agreement): (a) Specifying 'free of tax'; or (b) (High Court orders) for payment up to £2 per week for the wife and £1 for a child; or (c) (Magistrates' orders) for payments up to £5 per week (wife) and 30/- per week (child). Husband and wife living apart are assessed separately for tax and are entitled to single person's allowances. The children's allowances are shared between them, if they so agree.

|||| In Scotland, a guilty wife has no claim against husband for maintenance. Also a decree of divorce, except on the ground of incurable insanity, is equivalent as regards property to the death of the guilty party, and may give rise to a claim for legal rights against his estate. (See MAKING A WILL, p. 299)

RE-MARRIAGE IN CHURCH

A decree of nullity declares that the marriage never existed, so that the partners are in the same state as before they went through the marriage ceremony. A decree of divorce prevents either party from being re-married in a Roman Catholic Church. In the Church of England, discretion to re-marry the 'innocent' partner is left to the vicar, who usually acts on the instructions of his bishop. In the Free Churches rather more latitude, generally speaking, is allowed as to the re-marriage of the 'innocent' party.

Formalities at Death

NOTIFYING THE REGISTRAR

It is the duty of the nearest relative present at the death or in attendance during the last illness or of the occupier of the house in which the death took place, to notify the local registrar of deaths and to sign the register. If a doctor gives a certificate stating cause of death, the registrar will issue a death certificate. If no doctor issues a certificate, there will be a coroner's inquiry, after which the coroner will issue an order permitting the body to be buried or cremated.

ARRANGING THE FUNERAL

THE first step should be to call on or to telephone an undertaker, preferably one who is a member of the National Association of Funeral Directors. Undertakers are helpful people, who know all about the necessary formalities, including the obtaining of certificates, and will make all the arrangements with the least possible disturbance or stress to the bereaved family. They will make arrangements for buying a grave or for the opening of an existing one, and for the funeral service, and they will find a clergyman to officiate, if this is desired by people who have no church connection.

COST

The simplest funeral costs £20. In addition, the cemetery or cremation fee will be £5 to £10. The simple gravestone preferred today will cost about £45 or more, depending on the type of stone and workmanship required.

DEATH GRANT

UNDER the National Insurance Scheme a grant, varying from £6 for a person under 3 at time of death to £20 in the case of a person over 18, may be paid to insured contributors or the widow or dependants or other relatives of an insured contributor. A certain number of conditions must be satisfied, particularly about the number of contributions paid, but the person who gets the grant, which is intended to meet the cost of the funeral, of mourning, and of loss of wages due to attendance at the funeral, need not be the person who has paid the contributions. Application should be made to the local Pensions and National Insurance Office.

CREMATION

NO PERSON may be cremated unless a doctor gives a certificate of cause of death, which is confirmed by another doctor. Failing this, a coroner, after an inquiry, will issue the necessary order, unless there appears to be cause not to. No person may be cremated who has stated in writing that he or she does not wish to be. After the service and cremation it is usual nowadays to have the ashes scattered in the Garden of Remembrance at the crematorium. Only if it is desired to lay them in, perhaps, a family grave, are they put in an urn.

ETIQUETTE

NOTICE OF DEATH

Relatives and very close friends should be notified by letter, telegram, or telephone. This is a courtesy. Usually a member of the family sends a notice to the paper or papers. In the notice, after the surname, the date and place of death, the full names of the deceased, age (usually omitted nowadays except in the case of the very young or very old), the relationship should be stated in this order: husband (or wife) of . . . father (or mother) of . . . son (or daughter) of . . . brother (or sister) of . . . When the funeral is to be private, this should be stated and relatives and close friends invited personally; otherwise the place and time of funeral can be included in the obituary notice, and also where flowers are to be sent, or the words 'No flowers by request' may be added, if a wish to that effect has been expressed.

MOURNING

It is accepted that women who attend funerals wear black or a dark colour, and men wear dark suits and black ties. Mourning

thereafter is a matter of personal feeling; many people do not believe in it. Even widows rarely wear full mourning for more than six months and then half-mourning for three months.

THE FUNERAL

THE nearest relatives, father, mother, husband, wife, sons, daughters, brothers, sisters, drive in the carriage immediately behind the hearse and walk behind the coffin to the grave, other mourners following them. Women relatives need not attend a funeral unless they wish. It is kinder to themselves and to others not to do so unless they feel sure they can refrain from showing unrestrained grief.

VISITING THE BEREAVED

In some communities it is usual for friends to call at the house between the death and the funeral; in others, only relatives and close friends do so; less intimate friends and acquaintances merely leaving cards marked 'With deepest sympathy'. Friends should call within a month. The call is understood to be an expression of sympathy. They need not speak of the bereavement unless the family do.

ACKNOWLEDGING LETTERS

Cards with messages of sympathy and formal letters from slight acquaintances can be acknowledged by printed notes of thanks. Any stationer will show samples, and if a more personal phrase or two can be substituted for the cliché 'sad loss', so much the better. Other letters should be answered personally and usually briefly: 'Thank you very much indeed for your kind letter of sympathy. Your thoughts for us did help and we are grateful. I hope we shall see you soon.'

Help in Contingencies and Emergencies

BY A SERIES of Acts of Parliament—The Family Allowances Act, 1945, the National Insurance Act, 1946, the National Health Service Act, 1946, and the National Assistance Act, 1948—the citizen is enabled to provide against most of the ordinary contingencies of life and is helped in emergencies.

FAMILY ALLOWANCES

THESE are payable to the mother. The rate is 8s. a week for each child, except the eldest, below school-leaving age, or who is an

apprentice or under full-time instruction and below sixteen years of age. Full details and application forms are obtainable from a Post Office.

NATIONAL INSURANCE ACT

ALL men and women who live in Great Britain and who are over 15 or under pensionable age must pay contributions to National Insurance. There are three classes of insured person: (1) employed people, 'working for gain' under some form of contract; (2) self-employed people, who 'work for gain' on their own account, as do some professional people and shopkeepers; (3) non-employed people who do not 'work for gain'. An employed married woman has the right to decide whether to pay full contributions or not.

RATES OF CONTRIBUTION AND BENEFITS

THE different classes of insured person pay different rates of contributions and may qualify for the benefits appropriate to their class:

CLASS 1 All benefits, i.e. retirement pension, widowhood and maternity benefits, death grant, guardians allowance, sickness and unemployment benefits, and industrial injuries benefits.

CLASS 2 All benefits, except unemployment and industrial injuries benefits.

CLASS 3 Retirement pension, widows' benefit, death grant, and home confinement grant only.

Rates may be affected by the age and sex of the individual, and in certain cases by the conditions of the contract of service.

NATIONAL HEALTH SCHEME

NON-CONTRIBUTORY

The basis is the family doctor. Every citizen may, if he wishes, register with a doctor he chooses and who is working under the scheme, from whom he will receive free medical attention. Dental and ophthalmic services are inexpensive. The family doctor puts patients in touch with hospitals, specialists' services for out-patients, special clinics. Hospital services are free. Paying patients may have private wards if those are not occupied by non-paying patients needing quiet.

OTHER HELP FROM THE STATE

Local Councils have certain special duties laid upon them. They

must provide a clinic for expectant mothers and another for nursing mothers and their children up to the age of 5 (see (PREPARING FOR BABY'S COMING, p. 261, and WHEN BABY IS BORN, p. 264). Local Authorities must provide also local health centres, midwives, district nurses for people ill in their own homes, health visitors, ambulance services, or other means of transport for the sick or infirm and for expectant or nursing mothers, home helps where needed, accommodation or help in their own homes for the old and infirm or for handicapped people, such as cripples, the blind, or mentally defectives. Local authorities may provide special foods, blankets, and sick-room appliances for those ill at home or in special residential centres. Such help may be charged for, if applicants can afford to pay. Whenever help of any kind is needed in connection with physical difficulty enquiries should be made at the Welfare Department of the Local Council (address in telephone book, from Citizens' Advice Bureaux or Post Office).

FINANCIAL HELP

The National Assistance Board has taken over the work that used to be discharged by the Relieving Officers and Welfare Officers employed by Local Councils. Although most people are insured against unemployment, the amount of their unemployment benefit may be inadequate to meet the demands made upon them, and anyone who, through unemployment, is technically 'in need' has the right to apply for an Assistance Grant. Special regulations exist to determine whether a person or a family are in need or not. An allowance is made for rent. A husband and wife, after rent is paid, are entitled to 59s. a week between them, and a single person to 31s. At the end of May 1915 these amounts will be increased to 63s. and 37s. 6d. respectively. Smaller sums are allowed for each dependant in the household. The Assistance Board also makes grants to blind persons and those prevented from earning their living by undergoing treatment for tuberculosis. Again, a weekly sum is allowed for rent and to this is added enough to bring up the income of a man and wife, one of whom is blind or tubercular, to (at present rates, prior to June 1915) 77s. a week. If they are both afflicted in the same way then the scale-rate is raised to 89s. weekly, or as may be fixed. The Assistance Board is empowered also to help in temporary need. People who are under pensionable age and available for work should apply through their local Employment Exchange. Others should get form of application from a Post Office.

VOLUNTARY ORGANIZATIONS THAT HELP

In addition to help from National Insurance, Assistance Board,

and Local Councils, there are many voluntary bodies that help, either in co-operation with the Councils or independently. Addresses of local branches may be had from Citizens' Advice Bureaux, telephone directory, Welfare department, or by writing to the Headquarters of the Organization.

The British Legion, 48/49 Pall Mall, London sw1, provides a wide range of help to the ex-Serviceman or woman and his or her family. Its benevolent fund will consider making grants for tools, clothing, cost of travel, removal from home, surgical appliances, special training for applicants or children when handicapped by physical disability, and for almost any other good cause.

The British Red Cross Society, 14 Grosvenor Crescent, London sw1, in peace time is concerned with old people, escorts for invalids, the crippled and other disabled, and can seek information from abroad.

Central Council for the Care of Cripples, 34 Eccleston Square, London sw1, promotes measures for the early discovery, prompt and efficient treatment, training, and general welfare of cripples of all ages. It has a Homes Committee, and any enquiry will be passed on to an associated society specially interested in that particular type of disability and represented in the neighbourhood of the applicant.

Family Welfare Association, 296 Vauxhall Bridge Road, London sw1, carries out 'family casework' through its District Officers, placing special emphasis on personal service, visiting the lonely aged and invalids, helping about convalescent and holiday accommodation for those in need, or provision of furniture to those who have been compelled to start afresh through misfortune.

The Marriage Guidance Council, 78 Duke Street, London sw1, seeks to promote successful marriage and parenthood by education and by personal remedial work. (See MARRIAGE IN DANGER, p. 286)

National Council of Social Service, 26 Bedford Square, London wc1, is a federation of other bodies interested in social welfare and is the parent of the Citizens' Advice Bureaux to be found in most large towns. National Old People's Committee (same address) advises about care of, and homes for, the old.

National Council for the Unmarried Mother and Her Child, 21 Coram Street, London w1, has, as its special concern, the illegitimate child and its mother, seeking the happiness of both in trying to keep them together unless there are special arguments against this, helps about arrangements for the birth, advises about obtaining affiliation orders, and by its special knowledge and contacts can help women to face the social and physical strain of irregular motherhood.

National Institute for the Blind, 224 Great Portland Street, London w1, is a great central society with many regional connections. Helps about books, appliances, schools, training, employment, homework, hostels, visitors.

National Society for the Prevention of Cruelty to Children, Victory House, Leicester Square, London wc2, does much more than detect and prosecute offenders. Its district inspectors may be able to help in any difficulties concerning unhappy, overcrowded, or invalid children.

The Salvation Army, William Booth Memorial Buildings, Denmark Hill, London se5. In addition to religious work, its activities include men's social work: shelters for the destitute and poor, hostels, work shops, and shelters for working men, homes for the aged, discharged prisoners' aid, approved Homes for boys. In its women's social work: homes for the inebriate, the destitute, rescue homes, night shelters, homes for children taken from undesirable surroundings, for mothers and babies, approved homes and schools for juvenile delinquents (girls), training farms for overseas settlements, migration department dealing with selection and settlement of all types of migrants from the British Isles and the Continent.

Soldiers', Sailors' and Airmen's Families Association, 23 Queen Anne's Gate London sw1, helps wives, families, widows, orphans, and other dependants of serving or ex-service men and women; gives temporary grants, has a children and Homes department, a Married Families Residential Club in London, an Overseas Enquiry Bureau and a Clothing Branch.

Women's Voluntary Services, 41 Tothill Street, London sw1, gives practical assistance to Government Departments and Local Authorities, including work in child welfare, old people's welfare ('meals on wheels'), home helps, hospital libraries.

No list like this can be complete or fair. Most of the societies listed are 'central' societies—in touch with many others, too numerous to mention. Much of the work consists in passing cases and calls for help to the particular branch of a particular voluntary social agency which is qualified to deal with it.

Probation Offices attached to local Magistrates' Courts help not only those who have been 'in trouble', but with innumerable domestic tensions and upsets. They will always advise, and suggest an organization to help.

Diocesan Moral Welfare Workers help women and girls in trouble of any sort (address from Citizens' Advice Bureaux, police, Welfare Department).

Lonely people can be put in touch with clubs or societies through National Association of Girls' Clubs and Mixed Clubs, 30-32 Devon-

shire Street, London w1. Young Men's Christian Association, 112 Great Russell Street, London wc1, Young Women's Christian Association, Central Buildings, Great Russell Street, London wc1, National Union of Townswomen's Guilds, 2 Cromwell Place, London sw7, National Federation of Women's Institutes, 39 Eccleston Street, London sw1, National Federation of Young Farmers' Clubs, 55 Gower Street, London wc1, National Federation of Community Associations, 20 Buckingham Street, Strand, wc2, Women's Social Service Clubs, 26 Bedford Square, wc1, Youth Hostels Association, Welwyn Garden City, Herts., National Old People's Welfare Committee, 26 Bedford Square, wc1, and many others of which names and addresses can be had from Citizens' Advice Bureaux.

GOVERNMENT DEPARTMENTS

The Ministry of Pensions and National Insurance has its Regional Welfare Officers to advise and help disabled men and women who are in receipt of pensions. The Ministry of Labour has, attached to every Employment Exchange, a disablement Rehabilitation Officer, to help those handicapped by persistent illness or disability who wish to learn to support themselves.

LEGAL AID AND ADVICE

Legal aid in connection with High Court proceedings in civil matters may be granted under a state-aided scheme to those with small incomes. The income limit is computed on a net figure after allowing deduction for rent, mortgage payments, etc. An applicant whose net income is less than £420 p.a. may be financially assisted in bringing or defending High Court proceedings subject to his not having free capital exceeding £500; legal aid is free if the net income is under £156 and disposable capital under £75. The scheme is administered under local advisory committees to whom applicants should in the first place write. In Scotland, until a similar scheme is in force, those who require legal aid should enquire at the nearest Sheriff Clerk's.

Oral advice may be had free, by those unable to pay for it, at various Poor Man's Lawyer Centres run on a voluntary basis. (Address from the local Citizens' Advice Bureau.)

PART 13—SAFEGUARDS FOR PERSONS AND PROPERTY



Life Assurance

A NATIONAL INSURANCE pension is available at the rate of 32s. 6d. (40s. from the last week in April 1955) per week for a single man of age 65 or over or for a single woman of age 60 or over (or a married woman who has been insured on her own account) who has retired from regular employment. A married couple, the husband being over 65 and retired, will receive 54s. (65s. from the last week in April 1955) per week. On the death (at whatever age) of an insured person or his wife, widow, husband, or child, a death grant is paid towards the cost of the funeral.

LIFE ASSURANCE PROPER is of several kinds, of which the most usual are:

Whole Life Policy	Capital sum payable only at death of insured.
Endowment Policy	Capital sum payable after a fixed period or at earlier death.
Life Annuity	Annual sum payable from the present or a future date for the remainder of a named person's life.
Income Policy	Monthly or quarterly payments to dependants if insured dies within a specified period, coupled with certain capital benefits.
Educational Policy	A policy maturing during the school years of a particular child or children and designed to meet school fees and maintenance.
Capital Annuity	A series of payments in return for an immediate deposit of capital.

Policies may be with or without profits, the premiums being a little higher in the former case.

A 'surrender value'—the amount the company is prepared to pay if a life policy is allowed to lapse before its time—is acquired

after a certain period. A life policy is useful as a security on which banks and others will advance money. (For use of Life Assurance policy in connection with house purchase, see FINANCIAL SIDE OF BUYING A HOUSE, p. 47)

Insurance in General

INSURANCE companies today are open to accept a very wide range of business. (See LIFE ASSURANCE, p. 297, INSURANCE OF HOUSE AND CONTENTS, p. 46, and MOTOR CAR LAW (for insurance of motor cars against third-party risks), p. 206). Other types of policy which may especially interest the householder are motor car fire and theft policies (which may be incorporated with the third-party cover), policies covering the insured against accidents in the home or elsewhere, or against liability to domestic servants, neighbours, guests, and the public on account of negligence. (See RESPONSIBILITIES OF A HOUSEHOLDER, p. 19)

It is important that the fullest information in answer to the questions on any insurance proposal form should be given by the proposer. Any mis-statement or omission may invalidate the policy. Constant attention should be given to the question whether the amounts insured under fire and similar policies are adequate. The purchase of new furniture, for instance, will probably mean that the cover ought to be increased. Some articles (see the proposal form) may need to be specially declared. On the other hand, in insurance other than life policies there is no advantage in over-insurance, since only the actual loss can be recovered. Premiums must be punctually paid or the policy will lapse.

NATIONAL INSURANCE

Most persons over 15, whether in work or not, must now be insured under the National Insurance scheme. Married women need not, however, contribute unless they do work outside their own household duties. Contributions are payable by means of stamps, and are borne partly by the insured person and partly by his employer (if any). Benefits include sickness, unemployment, maternity (see WHEN BABY IS BORN, p. 264) and widow's benefits, retirement pensions, and death grants. Industrial injury is similarly covered. Full information may be obtained from any Pensions and National Insurance Office.

Making a Will *

NO ONE who has any property, even of a moderate value, should neglect or put off making a will. The will must be in writing, except that soldiers, sailors and airmen when actually in service are allowed to make informal wills, which may be oral. Two witnesses are required for a formal will. If they, or their husbands or wives, are given any benefit by the will, that benefit is lost. The witnesses, both present together, must see the testator sign or acknowledge the will, and must add their signature in his presence. Their addresses and descriptions should be stated.

CONTENTS

A will usually appoints one or more persons to be executors. The Public Trustee or the trustee department of a bank may be appointed if desired.

Next, the testator's wishes are, in a typical simple case, set out by way of gifts of particular items of property, sums of money, etc., finishing up with a gift of residue (i.e. property not specifically disposed of) to a named person or persons or an institution. It is most desirable that the gift of residue should be so worded as to embrace all the remainder of the testator's belongings, though it is not of course necessary to list the items. 'All the rest of my property' is a relatively safe expression to use when framing a final gift. The word 'money' is to be avoided unless only loose cash is meant. Avoid also technical terms and any word the exact meaning of which you do not know for certain.

In all but the most straightforward case, it is money well spent to have your will prepared by a solicitor, who is qualified by training and practice to express your wishes in a legally effective form.

A layman should on no account attempt a will if the testator's property includes a business, a house or land, or an interest in someone else's will or settlement; or if the testator wishes to leave any property to persons in succession.

INHERITANCE (FAMILY PROVISION) ACT

As a general rule a person may will his interest in property of all kinds to whomsoever he chooses. However, a widow or widower, an infant or disabled son, or an unmarried or disabled daughter may, within six months of probate or administration being obtained, apply to the High Court for an order under this Act. The court *may*, if satisfied that reasonable provision has not been made for the

applicant in the will, order that a reasonable sum be paid to him or her out of the income, or if the net estate does not exceed £5,000, out of the capital of the estate. A testator who is purposely 'disinheriting' a near relative may leave, in his will or separately, a statement for the information of the court of his reason for doing so.

REVOCATION

Marriage usually revokes a will. (See *GETTING MARRIED*, p. 282). Apart from this, the safest way of revoking is to make a new will declaring that all previous wills are cancelled. A new will does not of itself revoke previous wills except where inconsistent with them. Minor alterations may be made by codicil—a supplementary will which can be proved with the main document and rank as part of it.

* In Scotland, a will may be either 'attested', i.e. signed before two witnesses, or 'holograph', i.e. written entirely in the testator's own handwriting, in which case the testator signs it, but no witnesses are required. No one who receives any benefit under the will may act as a witness.

The contents of a will are much the same in England as in Scotland, and the desirability of having a will prepared by a solicitor even in the simplest case is again emphasized. When the testator wishes to appoint trustees to administer part of his estate for some length of time professional advice is essential, as well as in the cases mentioned above for England.

LEGAL RIGHTS

In Scotland husbands and wives have certain legal rights in each other's estates on the death of either; so also have children in their parent's estates. Generally speaking, a husband, wife, or child must on the death of spouse or parent choose whether he or she accepts the provisions of the deceased person's will or insists on getting the share of the estate to which he or she is entitled by law; neither parent nor child can claim both. In any case of doubt professional advice should be obtained. The legal rights are summarized below:

Rights of widower on death of wife—

- (1) Liferent (use during life, but without power to sell or give away) of whole of heritable property belonging to wife. Only claimable if there is a child of the marriage. The right is called *courtesy*.
- (2) Right to one-third of wife's movable (or personal) property as his own property if there are surviving children, or one-half if there are no surviving children. This right is called '*Jus Relicti*'.

Rights of widow on death of husband—

- (1) Liferent on one-third of husband's property heritable, whether there are children of the marriage or not. The right is called '*terce*'.
- (2) Right to one-third of husband's movable estate absolutely if there are surviving children, or one-half if there are none. This right is called '*Jus Relictae*'.

Rights of children on death of either parent—

If one parent still survives the child or children are entitled to one-third of the movable estate of the deceased parent equally between them. If one parent is already dead the children can claim one-half equally between them.

These rights, both of parents and children, can be renounced by the parents before or during the marriage, but parents can only renounce their children's rights if some reasonable provision is substituted. Children can also discharge their own rights during their parents' marriage. Apart from these rights, a person can

leave his property to whomever he wishes. It will be seen that it is difficult for a parent to disinherit a child or a husband a wife and *vice versa*, and this must be remembered when a will is being made.

REVOCATION

A will can only be revoked by a subsequent will in which it is expressly stated that the earlier will is cancelled. Marriage does not revoke a will, but a new one should always be made after marriage and after the birth of each child.

INTESTACY

In Scotland heritable and movable property follow different lines on intestacy.

HERITABLE PROPERTY

The order of succession is:

- (1) Eldest son, whom failing his heir, whom failing next elder son and his heir.
- (2) Daughters equally.
- (3) Immediate younger brother and his issue, whom failing next younger brother and his issue, whom failing immediate elder brother and his issue, whom all failing sisters equally.
- (4) Father.
- (5) Father's immediate younger brother and his issue, whom failing father's immediate elder brother and his issue, whom failing father's sisters equally.
- (6) Failing heirs the Crown.

MOVABLE PROPERTY

If movable estate is less than £500, the widow or widower takes the whole; if the movable estate exceeds £500 the widow or widower takes the first £500, the balance being divided as follows:

SURVIVING RELATIVES

Widower or widow without children or issue of children	Half to widow and half to remote heirs
Widow or widower and children	One-third to widow or widower, two-thirds to children
Widow or widower and grandchildren only	Half to widow or widower, half to grandchildren
Children only	Whole to children equally
Children and issue of predeceased children	Half to children, half to children and issue of predeceased children, issue taking equally the share to which the parent would have succeeded had he survived
Grandchildren only	Whole to grandchildren equally
Father only	Whole to father
Mother only	Whole to mother
Father and mother	Whole to father
Father or mother, brothers and sisters	Half to father or mother, half to brothers and sisters equally

It is beyond the scope of this work to follow the line of movable succession further; the examples given cover the more likely eventualities.

Inheritance When Intestacy

Where no will is found, or where some property is left by the deceased with which his will does not deal, the following is, since January, 1913, the scheme of distribution in England and Wales:

- (1) A surviving wife or husband takes all personal chattels (household furniture) and

- (a) if there are surviving children, grandchildren or other issue, £5000 and the income for life of half the remainder of the property; or
- (b) if there are no children, etc., £20,000 and half the remainder, if any, of the property.
- (2) Surviving children take between them, on reaching 21 including the capital, when it falls in, of the widow's life interest at (1a) above. Grandchildren and more remote issue step into the shoes of their parents, if those parents do not survive the testator. They do not otherwise participate.
 - (3) If no issue, the intestate's parents (equally if both survive) take all subject to (1b).
 - (4) If neither parents nor issue, then brothers and sisters take equally, on similar terms to 2, but subject to (1b). If none,
 - (5) Half-brothers and -sisters and their issue on the same terms. If none,
 - (6) The intestate's grandparents equally, subject to (1b). If none,
 - (7) Uncles and aunts and their issue on terms as in (4). If none,
 - (8) Uncles and aunts of the half-blood on the same terms. If none,
 - (9) The surviving wife or husband absolutely. If none,
 - (10) The Crown.

Savings

THE THEORY OF SAVING

SAVING is an act of sacrifice in that the saver postpones the enjoyment of spending. Savings may be hoarded in a stocking or box for eventual use, but, more generally, are lent to a borrower for a period which may be fixed or at the discretion of the saver. Broadly speaking, savings are employed by Industry and the Government. The former uses them, for instance, in the purchase of plant and machinery and the provision of factories, and the latter in immediate expenditure on the Forces, the servicing of loans, etc., in anticipation of taxes to be collected. When goods are scarce, savings lent to the Government help to check inflation. It is, therefore, an economic fact that savings are essential to a highly-organized community.

THE PRICE OF SAVINGS

THE SAVER lends his money in exchange for an agreed return, or in anticipation of a likely return, known as interest, which is payable periodically during the currency of the savings. This is the price which the borrower pays for the use of the savings. The greater the

safety of employed savings, the smaller the interest, or price, paid, e.g. Government loans return a modest rate of interest, whereas speculative undertakings have to offer a high rate in order to attract savings. Savings fall into two broad categories—voluntary and enforced.

VOLUNTARY SAVINGS

These may be subdivided into individual and institutional. The former represents the small but diverse personal savings of the community's members, collectively a high proportion of the whole: the latter the solid reserves of the banks, insurance offices, corporations and companies. These are less flexible than the individual savings and tend to be placed almost entirely in Government or like stocks.

ENFORCED SAVINGS

These are usually effected by Government action through taxation or the imposition of compulsory contributions as, for example, the saving towards pensions under the National Health Act. Post-war Credits are an example of saving through taxation.

METHODS OF INVESTING SAVINGS

SMALL SAVINGS

The importance of saving is realized by all responsible bodies, and by none more than the Government, who, through the Post Office, offer a safe and moderately remunerative repository for small savings. A Post Office Savings Account may be opened by anyone with little formality, and amounts as small as one shilling may be deposited at a time, with a maximum of £500 in a calendar year until a total of £3,000 is reached. Interest at the rate of $2\frac{1}{2}$ per cent per annum is paid on the savings. Withdrawals may be made at any Post Office: up to £10 on demand. For larger amounts, written application on the appropriate form is required.

National Savings Certificates are also attractive. Certificates of the current ninth issue, on sale at any Post Office or bank at 15s. per unit, become worth 20s. 3d. at the end of ten years, i.e. compound interest £3 os. 11d. per cent over the ten years. They may be encashed, with any interest due, at any time after purchase. National Savings Stamps of 6d. and upwards, on sale at Post Offices, may be exchanged for Certificates. A maximum of 500 15s. units may be held in addition to any existing holdings of previous issues. Interest on Post Office Savings Accounts is paid without deduction of income tax, but is liable thereto. National Savings Certificates are tax-free.

Somewhat similar facilities are also available to the small saver

at the Trustee Savings Banks, of which there are over eight hundred throughout the country. Established to encourage thrift, they are subject to Government supervision and offer interest on deposits at rates comparable to the Post Office Savings Bank. The joint Stock banks also encourage the small saver with their home safe accounts. (See **BANKING AND THE ORDINARY MAN OR WOMAN**, p. 306)

TAP ISSUES

Borrowing by the Government during the last war had no limits, and savers were exhorted to purchase National War Bonds, Savings Bonds, Defence Bonds, and National Savings Certificates. The ready issue by the Government of the first two has now stopped although, of course, they can be purchased on the Stock Exchange, i.e. transferred by one saver to another. The last two, however, are still available on 'tap'.

The present issue of Defence Bonds, 3 per cent interest per annum, is on sale in multiples of £5 at any Post Office or bank. They are repayable in 10 years from the date of purchase at £103 per cent, but may be encashed before maturity. The maximum holding is £2,500, exclusive of Defence Bonds of previous issues. (For National Savings Certificates, see **SMALL SAVINGS**, p. 303)

GILT-EDGED STOCKS

This is the name given to the 'Funds' (Borrowings) of the Government and certain Commonwealth Loans with fixed interest rates and redemption dates. Examples are: 3½ per cent War Stock 1952 and later; 3 per cent Savings Bonds, 1960-70; 3 per cent British Transport Stock, 1968-73. Gilt-edged Stock is regarded as having the highest degree of safety.

NEW ISSUES, FIXED INTEREST INDUSTRIALS, AND EQUITIES

Industry has many important needs for savings, particularly in its capital requirements and often appeals to the public with what is known as a 'New Issue', for subscriptions towards new ventures and expanding programmes. The offers to savers are usually in the form of Debentures (which are a charge on the assets), Preference Shares or Ordinary Shares. Although New Issues are not always available, it is at all times possible to purchase debentures or shares in a public company through a broker on the Stock Exchange. These savings, of course, are only transfers: the new saver repaying the old saver with the purchase money.

There are various classes of debentures and shares, but, with few exceptions, debentures and preference shares return fixed interest, debentures being a first charge on the company's earnings and

preference shares a first charge on the profits. The ordinary shares, or equities, receive the balance of the company's profits after all other charges and claims have been met. The interest payable to ordinary shareholders is therefore a variable quantity, depending on the year's trading results. If disappointing, there may well be nothing; on the other hand, a prosperous company with no debentures, or a not unreasonable proportion of debentures and/or preference shares, may return a high rate of interest to its ordinary shareholders.

UNIT TRUSTS

The Unit Trust is a comparatively new channel for savings. A number of Trusts have been formed to hold portfolios of stocks and shares of different sorts and types, the whole being divided into units which are sold to the public. The holder of a Unit has, therefore, a stake in a number of trading concerns, the average results of which should be fairly constant. The spread of the risk tends also to give stability to the price of the Unit. Purchase may be made through banks, brokers, or direct from the Trust.

BUILDING SOCIETIES

It is with the savings invested in Building Societies that these Societies give mortgage on property (loans on the security of property). There are a number of reputable Societies with whom savings may safely be invested, the interest rates at present offered being $2\frac{1}{2}$ to $2\frac{3}{4}$ per cent on deposits, *both tax paid*. Most Societies limit the amounts which may be invested with them.

ENDOWMENT ASSURANCE

A very satisfactory form of saving for those with dependants. Policies may be taken out for an agreed period, usually for ten to forty years. The sum assured is paid at the end of that period or on the death of the assured, if that should occur first. Premiums, which are usually paid monthly, quarterly, half-yearly or yearly, are eligible for certain income tax reliefs. There are many first-class Life Offices seeking this type of business and fuller particulars may easily be obtained from them, without obligation.

INVESTMENT ADVICE

BANKS will give advice of a general nature to their customers, and in many cases solicitors and accountants are in a position to give special guidance. However, the specialists in this field are the stock-brokers, and there are many firms of undoubted standing willing to give expert opinion. In this connection the banks are always prepared to obtain brokers' opinions and suggestions for their customers.



Banking and the Ordinary Man or Woman

TYPES OF ACCOUNT

THERE are three types of account which may be conducted with a bank:

Current Account, which may be fed with cash, cheques, warrants, money orders, postal orders, etc., and on which cheques may be drawn to the extent of the credit balance on the account or, by arrangement with the bank, to an agreed amount in excess of such balance. Cheque books are issued by the bank without charge (the value of the stamps is paid to the Inland Revenue) and cheques may be drawn by the account holder to third parties in payment of bills, fees, costs, etc., or may be used to withdraw cash from the bank. Paying-in books are also supplied so that the account holder may pay in, and keep a record of, cash and cheques to his or her credit. Statements of the account are sent to the holder periodically and provide a permanent record of the receipts and payments. No interest is paid on the credit balance.

Deposit Account, for the saving of money which is not required for immediate use. It is not a drawing account and interest at current rates (now $1\frac{3}{4}$ per cent) is paid on the balance, which is subject to notice of withdrawal.

Home Safe Account, for small savings. Interest at the rate of $2\frac{1}{2}$ per cent is payable on the first £100 and 1 per cent on the rest. A small safe (money box) is issued to the account holder to encourage saving in the home. This can be taken to the bank periodically in order that the contents may be extracted and added to the account. Withdrawals may be made by personal attendance without notice.

OPENING AN ACCOUNT

ALL THE banks welcome new account holders and deposit and home safe accounts may be opened with little formality. A current account is also easily opened. Joint deposit and current accounts may be opened in two or more names. Enquiries entail no obligation.

FACILITIES AVAILABLE TO CURRENT ACCOUNT HOLDERS

- (1) *Standing Orders.* The regular payment of such periodic obligations as rent, subscriptions, insurance premiums, etc., in accordance with the instructions of the account holder.
- (2) *Encashment of Cheques at other Branches and Banks.* The arrangement for the account holder to cash cheques at other banks or at other branches of the same bank up to a specified limit.
- (3) *The Custody of Valuables.* The safe keeping of boxes, parcels, envelopes, and securities.,
- (4) *Foreign Travel.* The provision of foreign currency, traveller's cheques and letters of credit within the limits authorised under the Exchange Control regulations. Advice and information regarding the regulations are available at all banks and passports may be obtained through them.
- (5) *References.* The Bank's name may be given as a reference.
- (6) *Income Tax.* All the Joint Stock banks will undertake for their account holders the preparation of returns for the assessment of income tax and sur tax, and claims for the repayment of tax. Charges are very reasonable, depending on the amount of work involved, and in the case of claims, the sums recovered.
- (7) *Stock Exchange Transactions.* The banks will undertake purchases and sales of stocks and shares on behalf of their account holders. Business is done through reputable firms of brokers and involves no extra payment of commission. Brokers' opinions and suggestions may also be obtained.
- (8) *Executor and Trustee Business.* Most banks will undertake to act as Executors or Trustees for their account holders and have special offices conducting this type of work. The charge depends on the size of the estate or trust to be managed and the work involved. Brochures setting out the scale of charges may be obtained, without obligation, from all banks giving this service. (See **MAKING A WILL**, p. 299)

BANK CHARGES

It is from the employment of its account holders' balances that banks normally expect to recoup themselves for the cost of maintaining the accounts, which involve large overheads. Periodically the current accounts are assessed, and where it is found that the average balance is insufficient to warrant keeping the account free, a charge commensurate with the work involved is made. In the North of England there are arrangements in force for basing the charge on turnover with contra allowances for credits. Bank charges are not standard throughout the country, but the branch manager is always willing to indicate the likely charge, if any.

BANK ADVANCES

Bank advances are made to provide temporary accommodation; it is not the normal function of a British bank to provide permanent capital. Advances are usually arranged on a secured basis, but unsecured loans are obtainable for approved purposes. In addition to the amount of the proposed borrowing, the bank requires to know for what money is required, for how long, and how it will be repaid. In the case of a secured loan, the security must be acceptable. (See also *SAFE METHODS OF RAISING MONEY*, p. 323). Enquiries by prospective borrowers are encouraged by the bank.

Income Tax in Brief

CATEGORIES OF INCOME LIABLE TO TAX

THE most common categories of income liable to Income Tax are earnings from an employment, trade or profession, interest or other income from investments, and income from the ownership of houses or land. Landed property is charged on 'annual value', a nominal estimate of the income benefit derived from the ownership of the land.

STANDARD RATE AND ALLOWANCES

INCOME TAX is imposed year by year at a standard rate (at present 9s. in the pound) without regard in the first instance to the circumstances of the person liable, but these circumstances are taken into account subsequently by means of a scale of allowances, so that in the end there is achieved a graduation according to means.

The principal allowances are, at the time of going to press, as follows:

Personal Allowance—£120 for a single man, £210 for a man and wife.

Children's Allowance—£85 for each child.

Earned Income Allowance—Two-ninths of all earned income (as opposed, generally speaking, to investment income) up to a maximum allowance of £450.

Age Allowance, Housekeeper Allowance, Dependant Relative Allowance, Life Assurance Relief, and Deduction of part of National Insurance Contributions.

Full details are set out in the explanatory leaflets distributed with Income Tax return forms and with notices of coding.

Reduced rates of tax apply over the lower ranges of taxable income, so that even after his allowances are exhausted a person bears tax

(on present figures) at only 2s. 6d. on the first £100 of his taxable income, and at 5s. on the next £150, and at 7s. on the next £150. For the remainder of his income the 9s. standard rate applies. Additional rates (known as sur-tax) are in operation for incomes over £2000 a year, a figure which in this connection is not diminished by the allowances referred to above.

RETURNS

A person liable to income tax must by law notify the fact to the local Inspector of Taxes, and must make a full and accurate return or statement of all his income. Parliament imposes monetary penalties (which may be much heavier than the tax involved) for neglecting to notify and make returns. Cases of deliberate suppression and fraud may also be the occasion of criminal proceedings.

ASSESSMENT

There are in each district Inspectors of Taxes and also Local Commissioners—the latter being unpaid. If a taxpayer does not wish his affairs to be dealt with by Local Commissioners, he may generally at his option have the amount of his tax settled by the Special Commissioners, a central body appointed by the Treasury and experienced in technical and legal matters.

An assessment of tax is made by the appropriate commissioners on information supplied by the Inspector. The Inspector acts usually on the taxpayer's return of income, but he is not restricted by that return and may even make an estimate of a taxpayer's income if no return has been received. That such an estimate is unlikely to err on the low side is an additional reason, apart from any question of penalty, why it is to the advantage of the taxpayer to make accurate returns.

APPEALS

Notice of all assessments made upon him must be given to the taxpayer, who may then write to the Inspector stating that he objects to the assessment and why. Unless the matter can be cleared up by correspondence to the satisfaction of both parties, the taxpayer is entitled to a personal hearing before the Commissioners. He is entitled to be represented by an accountant or a lawyer. In matters of law, he can test the decision of the Commissioners by going to the High Court, but he must in all cases first appeal to the Commissioners. It is worth remembering that if you receive notice of an assessment and let your time for appeal go by without objection, it will be no defence to proceedings to recover the tax to plead that

you have not received the income, or that the amount assessed is excessive.

TAXATION BY DEDUCTION

A widespread system of 'deduction at source' saves the country many thousands of pounds annually. For example, salaries and wages are now taxed under the 'Pay as You Earn' system. The allowances appropriate to each employee's circumstances are calculated by the Inspector and by reference to their total a code number is notified both to the employee and the employer. The former may appeal against the coding notice in the same way as against a direct assessment. The employer deducts from the employee's earnings such a sum, week by week, or month by month, as will result in the employee bearing, over the whole income tax year, approximately the amount of tax appropriate to his circumstances. Any adjustment either way is made in the coding notice for the next year. The employer must pay over the tax to the Collector of Taxes at monthly intervals.

Investment income, i.e. interest, dividends, etc., is also taxed at source. The payer of the income in these cases deducts the tax from the amount paid to the person entitled, and brings the tax into account with the Revenue.

REPAYMENT CLAIMS

Deduction of tax on investment income is always at the standard rate. If this is greater than the rate at which you are liable, you can claim repayment of the excess by filling up a form to be obtained from the Inspector.

POST-WAR CREDIT

The only Post-War Credit certificates which are redeemable now are those held by men of 65 or over and women of 60.

HUSBAND AND WIFE

The income of a married woman who lives with her husband is to be treated for income tax purposes as if it were her husband's. He must include it in his return and is liable to pay the tax on it, even though he may not have been concerned in any way in its receipt. As some compensation he is entitled to an additional allowance in respect of any earned income of his wife's. If, however, both husband and wife give notice to the Inspector between 6 January and 6 July in any year they may be separately dealt with, though the total liability remains the same.

Licences

DOG LICENCE

OBTAINABLE at Post Office. Costs 7s. 6d. and falls due on 1 January. No licence is required for a dog under six months old, or for a dog kept by blind person for guidance, or for a dog kept for tending sheep or cattle, but in the latter case the owner must apply to a magistrates' court for exemption.

WIRELESS AND TELEVISION LICENCE

OBTAINABLE at Post Office. Wireless licence, £1, Television licence, £2. Must be taken out when set is installed and is renewable on that date each year. If you hold a television licence you do not need also a radio licence, but a licence does not cover sets used by lodgers or other people paying for accommodation on your premises. A licence covers a portable set removed occasionally from premises, as when taken to a picnic or on holiday, but a separate licence is required for a car radio. Blind people do not need a wireless licence.

WIRELESS TRANSMITTING SET

AMATEURS should apply to Engineer-in-Chief, Radio Branch, G.P.O., St Martin's Le Grand, London EC1, enclosing certificate giving proof of having passed the technical examination set by the City and Guilds of London Institute. Annual charges are: (1) for a transmitter of 10 watts output, £1; from 10-25 watts, £1 10s.; over 25 watts, £2. In addition there is an initial charge of 10s. for licence (1) and of £1 for licences (2) and (3). For transferring to a higher output there is a charge of 10s.

DRIVER'S LICENCE

OBTAINABLE from county council or borough council. Minimum age, 17 for motor car, 16 for motor cycle or invalid carriage. Cost 5s. Application form contains questions about physical fitness. A new driver is issued with a provisional licence and must not drive a car or motor cycle unless under the supervision of someone who has held a licence for at least two years or who has passed a driving test; an 'L' sign must be displayed on vehicles, front and back, and be of the prescribed size. Before the end of three months a test must be passed, involving knowledge of the Highway Code and ability to

handle the vehicle. Anyone who fails to pass the test may apply for another test after one month. An ordinary licence is valid for one year.

ROAD FUND LICENCE

OBTAINABLE from county council or borough council. It is an offence to take a car or motor cycle onto the road unless it is licensed and is insured against third-party risks. (See **MOTOR CAR INSURANCE**, p. 206) For cars licensed before 1917 the tax is at the rate of 25s. per horsepower; for those licensed since 1917 it is a flat payment of £10. For motor cycles up to 150 c.c., rate is 17s. 6d.; up to 250 c.c., £1 17s. 6d.; other cases, £3 15s. The licence must be prominently displayed on the vehicle. Particulars of the vehicle are entered in a registration book which is sent to the owner. If you buy a car second-hand you *must* make sure that you are given the registration book. It is the duty of the seller to notify the council of the change of ownership; the purchaser must enter his or her own address in the space marked, 'First Change' or 'Second Change', as the case may be, and send the registration book to the authority whose name is on it. It will be returned in due course. A car may be licensed yearly or quarterly, the quarters ending on 24 March, 30 June, 30 September, and 31 December. Licences may be renewed at a post office, on production of the old licence and on personal application. A licence may be renewed or one for a shorter or longer period taken out from the licensing authority by post.

PILOTING AN AEROPLANE

APPLICATION for licence must be made to Ministry of Civil Aviation, Ariel House, Strand, London WC2, on form 601, with medical report form 541. Fee 5s. Minimum age, 17. The licence issued, if the medical report is satisfactory, is a provisional one which lasts a year. It entitles the holder to learn to fly at a licensed flying school. Before a private flyer's pilot's licence can be issued evidence must be produced of so many hours in the air under trained supervision, so many as pilot and of certain landings and take-offs having been made. Full details are given in Ministry of Civil Aviation Publication No. 53, obtainable from H. M. Stationery Office, Kingsway WC2.

POSSESSION OF FIREARMS

NO ONE under 17 may buy or hire a firearm, nor must anyone under 14, with certain exceptions, have one in his possession. A firearm certificate, which costs 5s. the first time, 2s. 6d. for renewal and lasts

3 years, is necessary for any person in possession of a gun, revolver, or air gun, except a smooth-bore gun, with barrel not less than 20 in. long. Certificate may be obtained from the local chief of police. In addition an annual gun licence must be taken out, which costs 10s. This last is also necessary for a smooth-bore (shot) gun. A game licence covers a gun licence. It costs £3 a year, expiring on 31 July, but may be taken at a lower rate for shorter periods, including any continuous period of 14 days, when it costs £1. Every person who hunts or shoots game must have a game licence, with the exception of people snaring woodcock or snipe, proprietors or tenants of enclosed land killing rabbits, people hunting deer or hare with hounds; a gun licence is not necessary for members of armed forces carrying guns on duty or at target practice, nor for owners of land firing to scare, but not kill, birds, or to shoot vermin. (The prices of licences stated were correct at the time of going to press. They are liable to be altered at any time.)

Identity Documents

BIRTH, MARRIAGE, AND DEATH CERTIFICATES

CERTIFICATED copies of entries of birth, deaths and marriages may be obtained from local registrars, whose addresses are available at post offices, or from the Registrar General, Somerset House, London WC2. The fullest possible details of date, place, name, etc., should be given. The fee for a full certificate, including searching the index, is 3s. 7d., but a special certificate for use in connection with industrial insurance costs only 6d.

PASSPORTS

APPLICATIONS

These must be made on a special form, which has regulations printed on the back, obtainable from the Passport Office, 1 Queen Anne's Gate, Dartmouth Street, London SW1 (weekdays open 10 a.m.-4 p.m.; Saturdays until 1 p.m.) or from the Branch Passport Office, 36 Dale Street, Liverpool 2 (weekdays 9.30 a.m.-4.30 p.m. Saturdays until 1 p.m.) Fee 15s. A postal order, crossed and made payable to the Passport Office, should accompany postal applications, for which at least 10 days should be allowed. Cheques, notes or stamps are not acceptable. Application forms may also be obtained from local offices of the Ministry of Labour. The manager will help

to fill them up, sign the declaration and verify the passport photographs. An appointment should be made in advance.

PHOTOGRAPHS

Two unmounted photographs of the applicant (and wife, if she is to be included in passport), on thin paper and measuring not more than 3 in. by 2 in. or less than 2½ in. by 1½ in., taken full-face and without hat, must accompany application. These must be certified on the back, as instructed on the application form.

VERIFICATION

Application must be verified by a declaration signed by an official of a bank established in the United Kingdom, a mayor, magistrate, provost, justice of the peace, clergyman, barrister, solicitor, doctor, surgeon, or chartered accountant, resident in the United Kingdom and himself a British subject, or by the manager of any Employment Exchange. Applicants serving in the Forces may have application verified by their commanding officer. Naturalized British subjects must send a certificate of naturalization with their application.

TO WHOM AVAILABLE

British passports are available for natural-born British subjects, British subjects by naturalization, wives and widows of such British subjects, British women married to foreigners who have not taken their husbands' nationality. A wife may be included in her husband's passport, but she requires a separate one if she is travelling alone. Children under 16 may be included in their parents' passport; between the ages of 16 and 21 they require separate passports, and the application must be accompanied by the written consent of parent or guardian. If a separate passport is required for a child under 16 a declaration on Form B must be made by parent.

DURATION

Passports are available for five years in first instance, unless otherwise stated. After that, they must be renewed for periods of from one to five years, the total being not more than ten years from the date of first issue. If no pages are available for further visas, a new passport must be obtained. British passports are available for travel in the countries marked on them, but may be specially endorsed for further countries in which British protection is available; such endorsement, however, does not do away with necessity of obtaining visas from the consulates in Great Britain or countries whose immigration laws require entrants to be in possession of visas.

RENEWAL ABROAD

British subjects whose passports expire while they are abroad must apply to the nearest British consulate.

CHANGE OF NAME††

A CHANGE of surname may be effected without formality by inducing those with whom you come into contact to refer to you by the name of your choice. If you own any property or are in business, it is advisable to record in writing the decision to change your name. An advertisement in the local press is sufficient. A more formal method is by deed poll. Under certain conditions, this may be enrolled in the High Court as permanent evidence of the change.

†† In Scotland, a 'Certificate of Change of Name' costing 15s. may be obtained from the Lord Lyon King of Arms, or by registering a short deed narrating the change in the Books of Council and Session (kept at the Register House, Edinburgh) or in a Sheriff Court's Books. It is necessary to exhibit the registered deed or certificate to the Registrar of Births, Deaths, and Marriages in the district where you were born.

Voting Rights and Liability to Jury Service

VOTING RIGHTS**ELECTORS' QUALIFICATIONS**

Since the passing of the Representation of the People Act, 1945, every British subject over 21 is (with certain exceptions) entitled to vote, provided his or her name is on the electoral register in the district where residing. The exceptions are Peers, who may not vote in Parliamentary elections; lunatics, individuals found guilty of corrupt electoral practices, and individuals serving prison sentences.

The register of voters is compiled by canvassers calling at premises and asking for a return, on a special form, of everybody eligible living there. Before being finally closed, the registers are open for inspection at local Post Offices. Eligible persons whose names have been omitted can apply to the Town Clerk, or Clerk to the County or District, to have their names added to the register, provided this is done within the prescribed period.

Service men and women and Merchant Seamen over 21 must also apply to be put on the electoral register. They can then record their votes either by proxy or by post at a Parliamentary election, but only by proxy at a local election (for Councillors). Invalids are

allowed to vote by post, so are those out of the country on business, providing special application is made well in advance. Blind persons may be assisted at the poll by a relative or friend.

Plural voting, i.e. 'University' and 'Business Premises' votes in addition to the ordinary residential vote, has now been abolished, but those who would have had a business premise vote can choose whether they will vote in the district where they live, or where their business is situated.

JURY SERVICE ¶¶¶

THE electors' lists distinguish those electors, men and women, who are qualified to serve on juries (other than coroners' juries). They must be householders in occupation of property of a rateable value of £20 yearly or over. Exemptions exist for persons in many categories, i.e. those over 60, ministers of religion and certain public servants. A person claiming exemption whose name bears the distinguishing mark on the published list must make his claim to the registration officer before 25 January in the relevant year. An appeal from the registration officer may be made to the magistrates. The jury book is compiled from the list as revised. Persons named in the book are liable to receive a jury summons (but not more than once a year) and only illness will excuse compliance.

¶¶¶ In Scotland the Sheriff keeps a Jury Book, with the names of all persons eligible for jury service in the Sheriffdom. The book is revised periodically by sending to every householder a schedule requiring him to enter the name of every person qualified to serve. The qualifications are the possession of heritable property worth £5 annually, or goods, chattels, and personal estate of the value of £200. Travelling and subsistence allowances are now payable to jurors while serving. Both men and women are eligible.

Dealing with the Property of a Deceased Person §§§

PROVING A WILL

A WILL is not immediately fully effective, even on the death of the testator. It requires to be 'proved' before the court. If there is no doubt that the will in question is the latest unrevoked will of the testator, proof may be a purely routine matter carried out in the court offices in London or in a District Registry. Again, if no will is found, or if no executor named is willing to act, the court may grant Letters of Administration to an administrator who thereby acquires

powers substantially similar to those of an executor. A person who deals in any way with the affairs of a deceased person without obtaining a grant of probate or administration may incur personal liability.

OBTAINING THE GRANT

It is not essential to employ a solicitor, because facilities for obtaining grants by personal attendance are available, and this method is adequate in straightforward cases. Various documents require completion, and these, with printed instructions, may be obtained on writing to the Personal Application Department, Royal Courts of Justice, Strand, London WC2, setting out the circumstances (will or no will, composition of the estate, etc.). When the forms are filled up, they should be taken personally by the applicant to the department for scrutiny. An appointment for the completion of the papers will then be given, and a note supplied of the court fees and any estate duty payable. There is no estate duty if the total of the property which changes hands by reason of the death does not exceed £2,000.

There are District Registries in the Provinces where grants may alternatively be obtained, and in the simplest cases under £500, some Customs and Excise officers are authorized to act as agents in proving wills or obtaining administration. The addresses are obtainable at post offices.

AFTER GRANT

The deceased's debts and funeral expenses must first be paid, but if the estate is insolvent a solicitor should be consulted before anything is disturbed. The original probate or other grant is next

§§§ In Scotland where, failing a will, or the appointment of executors the following can apply to the Sheriff for appointment as Executor:

(1) Next-of-kin (i.e. children), (2) widow or widower, (3) descendants of children, (4) creditors, (5) legatees; in that order of preference.

The Executors' first duty, whether appointed by will or by the Sheriff, is to prepare an inventory of the deceased's property. The inventory must be on the form prescribed by the Commissioners of Inland Revenue (obtainable at any Head Post Office) and when completed must be sent to the Registrar, Estate Duty Office, Edinburgh. The Estate Duty is then assessed and paid, and the Inventory returned stamped. The stamped inventory and the will or decree appointing executors are then lodged with the Sheriff Clerk of the district where the deceased lived, and the Sheriff Clerk issues the confirmation. This confirms the executors in office and entitles them to gather in and distribute the estate.

After confirmation is obtained, the executors must first pay the deceased's debts and funeral expenses; thereafter six months should be allowed to elapse from the date of death before the estate is distributed to beneficiaries.

Where the total value of the estate does not exceed £500 the Sheriff Clerk will, for a small fee, prepare the inventory and obtain confirmation of the executors. This procedure is available whether the deceased left a will or not.

produced to any creditors of the estate (including the deceased's bank) and companies, etc., in which he held interests and the assets realised or made into the representative's name. The payment of legacies and distribution of the residue follows.

PROVED WILLS AND GRANTS

Copies of wills and grants may be seen at the Principal Probate Registry, Somerset House, London WC2.

Some Points of Etiquette

CALLING AND LEAVING CARDS

FORMAL calls are less usual in cities than they were. They are still customary in smaller places, where old residents call on newcomers. A married woman, calling on another married woman, leaves on the hall table as she departs, one of her own visiting cards and two of her husband's. The reason is that women do not leave cards socially on men, so hers is for the hostess and her husband's are for the host and hostess. A call should be returned within three weeks. A quarter of an hour is long enough to stay. Unless the call is made at tea time, no refreshment need be offered.

ENTERTAINING AND BEING ENTERTAINED

FORMAL DINNER PARTY IN A PRIVATE HOUSE

A maid opens the door, shows a man where to leave his coat, and conducts a woman to the room where she is to leave hers. The man waits in the hall till the woman joins him. The maid asks, 'What name, please?' and announces at door of drawing room, 'Mr and Mrs White', or 'Miss Sally Dash and Mr John Dash'. She then stands aside for guests to enter. It is usual to offer sherry or a cocktail before dinner, and to make introductions. If the party is large, a newcomer should not be introduced all round. It is enough to introduce him to members of a group first; other people can be introduced later.

When dinner is announced, and unless the dinner is very formal when each man would have been told in advance whom he was to take to dinner, and been introduced to her, the women go in first, led by the hostess, and the men follow in a group. The host should know where people are to sit; place-cards are helpful. If members of the peerage are present, the place-cards should read: 'Lady Blank', not 'Viscountess Blank'. The exception is Duke or Duchess, whose

place-cards must read, 'Duchess of Blank', 'Duke of Blank'.

The chief woman guest sits on the host's right, the chief man guest sits on the hostess's left in England, but abroad he would sit on her right, which makes the arranging of guests, man/woman/man/woman, impossible if the numbers are even. A maid serving offers dishes at the left, beginning first with the woman on the host's right, going next to the woman on his left, and then straight round the table, returning to serve the host last. Then she offers wine at the guests' right (where the glasses are), saying, 'Will you take wine?' if there is only one wine, or 'Red or white wine?' if there is a choice. Sherry may be offered first with soup.

Nowadays coffee is usually served at the table, before the women leave the dining room. Or the older custom may be adhered to by which, after dessert or whatever the final course may be, the hostess catches the eye of the chief woman guest, smiles at her, and then rises. Other women break off their conversation and join her at the door, which the nearest man opens, all the men standing till the women have gone. Women may have coffee in the drawing room, the men remaining behind for about twenty minutes.

FOODS EATEN IN SPECIAL WAYS

Curry (served at luncheon only) is eaten with dessert spoon and fork. Asparagus is usually eaten in the fingers, the stalk being dipped in sauce, the tip bitten off and the stalk left on plate. Grapes and cherries are eaten in the fingers; stones are removed from the mouth into the closed hand and so to the plate. Globe artichoke, leaves are broken off with the fingers, dipped in sauce, and eaten. Oysters are eaten whole, whatever their size, and carried to the mouth on a small fork. A melon is eaten either with spoon and fork, or with dessert knife and fork, which should be on the plate on which wedge of melon is served, not on the table. Bread is broken, not cut, at lunch or dinner. Puddings are eaten with a fork only, even though both spoon and fork are laid on table. These are necessary for fruit tarts or any sweet that contains liquid. Ices are eaten with a teaspoon, which should be on an ice plate, not laid on the table. Cutlery usually laid, reading from left to right, is: fish fork (if fish is being served), meat fork, dessert fork (then table mat or space for plate), dessert spoon, meat knife, fish knife, soup spoon. A small knife for butter and cheese may be laid either across the top of the cover or slantwise on a small plate at left, on top of the napkin.

Soup should be *drunk* from soup bowls, spoon being used first to test heat and perhaps later to eat vegetables from the bottom of the bowl; soup in plates is eaten with a spoon, the spoon being filled with a movement away from the diner.

PUBLIC DINNERS

A table chart is usually displayed in the anteroom or reception room and guests should look for the number of their table. Husbands and wives usually sit together. They should talk to their neighbours at tables without introduction. No one must smoke until the chairman has given the toast of 'The Queen'. Usually the subscription to dinner covers only the cost of the food and whatever entertainment is offered after dinner. Waiters ask for orders for wine, and present the bill or ask for payment afterwards; if so, they should be tipped a generous ten per cent of the wine bill.

PUBLIC RECEPTIONS

An official will ask for names and announce the guests, who will shake hands with the host and hostess receiving near door. It is not usually necessary to say goodbye to the host and hostess, unless the reception is in their own house. If royalty is present, no one should leave until the royal guest has departed.

LUNCHEONS

At either public or private luncheons women guests wear hats and gloves, only outdoor coats being left in the cloakroom. At a luncheon, gloves are not removed until after shaking hands with the hostess (and the host, if present) and, unless cocktail food is offered, should not be removed until the guest is seated at the luncheon table. A hostess never wears a hat in her own house, but will wear one at a public luncheon.

INVITATIONS

Invitations to dinner and weddings go out in the name of the host and hostess; all other invitations (to luncheons and parties) in the name of the hostess only. Third-person invitations should be replied to in the third person, even if they come from a member of the family.

LETTER ETIQUETTE

ADDRESS, telephone number, and date should be on the letter, even if to close friends. When writing to a firm, address letter to 'Messrs Balance and Dividend', if firm is in personal name, or to 'The Manager' if firm has impersonal name, such as 'The Blankshire Cement Company, Ltd'. Letters to a bank should be addressed to the Manager, to a society to the Secretary, to a school to the Principal or Headmaster or Headmistress, unless these are known to you personally, when you would address them by name.

TITLES AND FORMS OF ADDRESS

MEMBERS of the peerage, below Duke and Duchess, are addressed in speech as 'Lord Blank', 'Lady Dash' (which is the form used on visiting cards, place-cards, and invitations); only on envelopes is the full title used. Formal envelopes (containing letters on business, professional, or public matters) should be addressed to: 'The Most Hon. the Marquess (or Marchioness) of Mars', 'The Right Hon. the Earl (or Countess) of Efor', 'The Right Hon. the Viscount (or Viscountess) Vivian', 'The Right Hon. the Lord (or the Lady) Leif'. Social envelopes to these people (invitations to your home or friendly letters) should omit the prefix 'Most Hon.' or 'Right Hon.'. Dukes and Duchesses are 'His (or Her) Grace the Duke (or Duchess) of Dors' on formal envelopes and 'The Duke (or Duchess) of Dors' on social envelopes. They are addressed in speech by guests as 'Duke' or 'Duchess', and, formally as 'Your Grace'. Younger sons and all daughters of Dukes and Marquesses are addressed on envelopes as 'The Lord Peter Dash' or 'The Lady Jane Blank' (family name, not necessarily title-name of father), and in speech as 'Lord Peter', 'Lady Jane'. Daughters of Earls are also 'The Lady Mary Family-Name'. Younger sons of Earls and all sons and daughters of Viscounts and Barons take the title 'The Honourable' on envelopes, but in speech (also on visiting cards, invitation cards and place-cards) they are 'Mr Blank' and 'Miss Dash'.

The prefix 'The' is a sign of a member of the peerage. 'Lady Blank' would be the wife of a baronet or a knight.

A lady who has been made a Dame (equivalent of Knighthood) is addressed on envelopes as 'Dame Mary Dash' and in speech as 'Dame Mary', unless she possesses a higher title.

Wives of younger sons of Dukes and Marquesses take the title 'Lady' used with their husband's Christian and surnames: 'The Lady Peter Dash'; she should be addressed in speech as 'Lady Peter'. Wives of younger sons of Earls and all sons of Viscounts and Barons, are 'The Hon. Mrs John Dash' on envelopes and 'Mrs Dash' in speech.

Archbishops are, on all envelopes, 'His Grace the Lord Archbishop of —' and are addressed in speech as 'Your Grace'. A letter should begin, 'My Lord Archbishop'. Bishops are, on envelopes, 'The Right Reverend the Lord Bishop of —' and are addressed in speech as 'My Lord'. A letter should begin, 'My Lord Bishop', or (socially), 'My dear Bishop'. Deans are 'The Very Reverend the Dean of . . .' on envelopes; in speech, 'Mr Dean'. Formal letters begin, 'Very Reverend Sir'; social letters, 'Dear Mr Dean'. Archdeacons are 'The Venerable the Archdeacon of . . .' on envelopes;

in speech, 'Mr Archdeacon'. Formal letters begin, 'Venerable Sir', social letters, 'Dear Mr Archdeacon' or 'Dear Archdeacon Blank'.

It is a bad mistake to address or refer to any clergyman as 'The Reverend Jones'. Envelopes should be addressed to 'The Rev. John Jones' or 'The Rev. J. C. Jones'; in speech he is 'Mr Jones'.

Ambassadors are 'His Excellency . . . (then title and/or name) . . . H.B.M.'s Embassy . . .' on envelopes, and are addressed in speech as 'Your Excellency'. A British Minister is addressed by his name (or title) and the words 'H.B.M.'s Legation' should go in the line above the address of the Legation. Similarly a consul should be addressed by name and 'H.B.M.'s Consulate' should precede the street and town on the envelope.

Lord Mayors are addressed on even social envelopes during the time of their office as 'The Lord Mayor of . . .' and their wives as 'The Lady Mayoress of . . .'. The Lord Mayors of London, Adelaide, Belfast, Brisbane, Melbourne, Perth, Sydney and York have the prefix 'Right Honourable' and their wives share the honour. The Lord Provosts of Edinburgh and Glasgow are 'The Right Hon. the Lord Provost' on envelopes, but their wives are just 'Mrs Macpherson' or (if husband is a knight) 'Lady Andrews'.

Officers in the services above and including the ranks of Naval Lieutenant, Army Captain and Flight Lieutenant in the Men's Services, and Second Officer, Junior Commander and Flight Officer in the Women's Services, are addressed by their rank both socially and formally. Officers below these ranks are addressed on social envelopes as 'Esq.' or 'Mrs' or 'Miss', with the initials of the Service or the Unit following, and are 'Mr', 'Mrs', or 'Miss' in speech.

On all envelopes the letters V.C., K.G. (or K.T. or K.P.), K.C., M.P., D.D., or D.Sc. (or other doctorate) should be used if the addressee is entitled to the honour. Other decorations, honours, signs of office or university degrees, are not used on social envelopes. A surgeon is 'Esq.' on envelopes and 'Mr' in speech. A physician may be addressed as 'Dr A. L. Pills', or, more correctly, 'A. L. Pills, Esq., M.D.' (or whatever degree he holds). A Doctor of Divinity should be addressed as 'The Rev. E. G. Church, D.D.,' on envelopes and as 'Dr Church' in speech.

(See also CHRISTENING: p. 273; GETTING MARRIED, p. 277; ANNIVERSARY CELEBRATIONS, p. 283; FORMALITIES AT DEATH, p. 290, for appropriate etiquette.)

Safe Methods of Raising Money

BANK ACCOMMODATION

THE BANKS regard their advances to customers by way of loan or overdraft as perhaps the most important side of their business. (See **BANK ADVANCES**, p. 308) Such advances are usually made against the following types of security:

1. Stocks and shares which are saleable on the Stock Exchange.
2. The deeds of property, including land.
3. Assurance policies which have acquired a surrender value.
4. Guarantees of third parties where the responsibility of the guarantor is confirmed, or the obligation supported by security to the extent of the amount guaranteed.
5. National Savings Certificates where the probity of the borrower is undoubted.

Exceptionally, private company shares, reversions and second mortgages are accepted as well as other less common types of security.

The formalities in connection with the charging of security are, usually, quite simple.

BUILDING SOCIETY LOANS

BUILDING SOCIETIES specialise in loans against the security of property and, unlike bank loans, arrangements for borrowing may be made to cover a period of as much as twenty years. Building Society advances are widely used in connection with the purchase of property, the report of the Society's surveyor largely determining the amount to be advanced. It is not uncommon for a borrower to obtain as much as 80 per cent of the purchase price. Enquiries are invited by the Societies. (See also **FINANCIAL SIDE OF BUYING A HOUSE**, p. 47).

ASSURANCE COMPANY LOANS

ALL THE Life companies are prepared to grant loans to their policy-holders when the policies have acquired surrender values. Surrender values are usually quoted after premiums have been paid for two or three years and represent a proportion of the total premiums paid. The loans granted to policy-holders will not exceed the surrender values of their policies, but if, during the currency of the loan, the assured dies, then the full policy money is paid, less the amount of the loan and the outstanding interest.

FARM LOANS

LOANS for the purchase and improvement of farms, the erection of farm buildings and other farming purposes are made to approved borrowers by the Agricultural Mortgage Corporation, Ltd., of Stone House, Bishopsgate EC2. Mortgages can be arranged for long terms at most favourable rates of interest.

PRIVATE LOANS

SOLICITORS are often entrusted by their clients with money for investment, and, for purposes which have their approval, this money is available for private borrowing, especially by persons requiring to anticipate their absolute reversionary interest in Trust Funds, i.e. the absolute right to a certain sum on the death of a life tenant who enjoys the interest. Accountants, too, are often in a position to introduce a private borrower to a private lender.

ASSISTANCE LOANS

SOME charitable organisations will grant small loans to eligible people in cases of hardship, e.g. The Officers' Association to Army, Navy, and R.A.F. Officers. There are also grants available—particularly from the Government—to those undergoing special courses of training. Enquiries in this connection should be directed to the appropriate Government Department, the local Employment Exchange or Assistance Board office.

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